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DEPARTMENT OF DEFENSE AMMUNITION REQUIREMENTS AND PRODUCTION BASE

ORIGINAL

HEARING

BEFORE THE

SUBCOMMITTEE ON PREPAREDNESS

OF THE

COMMITTEE ON ARMED SERVICES
UNITED STATES SENATE

NINETY-NINTH CONGRESS

FIRST SESSION

OCTOBER 31, 1985

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DEPARTMENT OF DEFENSE AMMUNITION REQUIREMENTS AND PRODUCTION BASE

THURSDAY, OCTOBER 31, 1985

U.S. SENATE,
SUBCOMMITTEE ON PREPAREDNESS OF THE
COMMITTEE ON ARMED SERVICES,
Washington, DC.

The subcommittee met in open session pursuant to notice, at 3 p.m., in room SR-232A, Russell Senate Office Building, Senator Gordon J. Humphrey (chairman) presiding.

Present: Senators Humphrey, Denton, Levin, and Dixon.

Staff present: Robert G. Bell, Ronald P. Kelly, and David S. Lyles, professional staff members; Patricia L. Watson, research assistant; Lisa M. Tietge, staff assistant.

Also present: Allan W. Cameron, assistant to Senator Denton, Alan Ptak, assistant to Senator Gramm, John B. Kelley, assistant to Senator Levin; Charles C. Smith, assistant to Senator Dixon; and Milton D. Beach, assistant to Senator Glenn.

OPENING STATEMENT BY SENATOR GORDON J. HUMPHREY, CHAIRMAN

Senator HUMPHREY. The subcommittee will come to order.

Today the Preparedness Subcommittee will begin an examination of problems associated with military ammunition. We want to review the processes by which ammunition requirements are set because from our perspective, at least, it appears that the ammunition request from DOD is determined more by fiscal considerations than military requirements.

In addition, we are concerned that the ammunition production base is barely adequate to meet a peacetime level of output and that a mobilization level could not be achieved without significant prior investments in substantial lead time.

Finally, the General Accounting Office, as well as DOD, has documented shortfalls in the ammunition stock and production base, but it would appear that the Department of Defense is requesting fewer dollars for ammunition.

The Department promises to address the production base problems, but seems to put them off repeatedly; that is, put off addressing the production base problems, and had scheduled to begin addressing them in fiscal year 1987, but I understand now that date has been pushed back further.

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GAO has documented ammunition and production base shortages, but for their part has a reduction of $1.2 billion in the fiscal year 1986 ammunition request.

We will keep the hearing open as long as possible, but will go to a closed portion at the end to take testimony in explicit numbers on the days of supply, and so on.

I want to welcome my colleague, Senator Dixon, of Illinois.

Senator Dixon, do you have an opening statement?

Senator DIXON. Thank you, Mr. Chairman, I do.

With your approval, I will place it in the record and save our friends the time of listening to me so that we can hear the witnesses.

[The prepared statement of Senator Dixon follows:]

PREPARED STATEMENT OF SENATOR ALAN J. DIXON

Mr. Chairman, I join you in welcoming the witnesses to the subcommittee this afternoon.

This is Secretary Wade's first appearance before this subcommittee in his new role representing logistics and readiness programs in the Defense Department. I want to take this opportunity to wish him well in this new and very important assignment, and to say that I look forward to working closely with him to improve the capability of our military forces.

It is hard to think of anything more important to the capability of our military forces than having an adequate supply of modern ammunition. For some time now, I have been concerned that the budget priorities in the Defense Department have overemphasized procurement of new weapons systems while postponing procurement of the necessary munitions stocks essential to the employment of these weapons. Secretary Wade's prepared statement acknowledges that while we have significantly increased our munitions stockpiles over the past few years, we still have a long way to go in providing adequate quantities of some critical munitions.

Mr. Chairman, I look forward to the witnesses' testimony. I will have questions for them after their prepared statements.

Senator HUMPHREY. Mr. Secretary, would you like to read your statement?

In any event, you are welcome to proceed as you wish.

STATEMENT OF HON. JAMES P. WADE, JR., ASSISTANT SECRETARY OF DEFENSE (ACQUISITION AND LOGISTICS), ACCOMPANIED BY BRIG. GEN. GUY P. BOWEN, DEPUTY EXECUTIVE DIRECTOR FOR CONVENTIONAL AMMUNITION

Dr. WADE. Thank you, Mr. Chairman and Senator Dixon.

Good afternoon.

I appreciate this opportunity to address the subcommittee on DOD's sustainability programs. My appearance here today represents two firsts.

This is my first opportunity to speak to you as the new Assistant Secretary of Defense for Acquisition and Logistics. And this is your first opportunity to hear a single speaker representing both the procurement and the production support communities. Acquisition and logistics encompasses requirements determination, acquisition policy, procurement review, production base investment, and stockpile management.

Brig. Gen. Guy P. Bowen is with me today as my backup witness. The Army, as the single manager for conventional ammunition, operates most of the Government-owned ammunition production base

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for all services and does the contracting for associated procurements from the private sector.

It is in this purple-suit capacity that General Bowen is here today. He is the deputy executive director for Conventional Ammunition.

What I would like to do in my opening statement is focus on three things:

One, how we do business today in terms of both requirements and budgets.

Two, what our sustainability level is.

And three, the course we are following for the future.

THE REQUIREMENTS PROCESS

The munitions procurement process begins with the determination of requirements to support U.S. forces in combat in scenarios derived from an illustrative planning scenario in the defense guidance. These requirements are determined using various models that are peculiar to the service and to the type of combat being supported.

These models have evolved over a number of years, increasing in their ability to represent the numerous factors that impact on the expenditures of munitions. Although a vast amount of highly capable talent has been applied in the development and exercise of these models, we frankly admit that our ability to simulate combat, which is surely one of the most complex human activities, is marginal at best. These models are good and none better are available, but they are not perfect—we are continually improving them.

For computing requirements, we have divided our munitions into two types:

What we call level-of-effort munitions whose expenditures are expressed as a function of time.

And threat- or mission-oriented munitions, whose expenditures are driven by the size of the threat to be defeated or the number of missions to be conducted.

Threat-oriented munitions expenditures are not expressed as functions of time. You should note that in almost all cases our level-of-effort munitions expenditures rates also depend heavily on how we believe the threat will be engaged over time.

The Army uses two-sided combat simulations that assess the flow of battle. Assessments of combat results can also be made. The Army models are quite detailed. Weapon system/munition level of detail is simulated for Europe, Korea, and Southeast Asia scenarios. These scenarios are updated every 2 to 3 years.

Requirements for Air Force and Navy threat munitions are based on probabilities of kill, potential uncertainty in the threat distribution, and levels of assurance that no weapon system will run out of ordnance before the threat is killed.

Air Force and Navy level-of-effort ordnance requirements are calculated by models that optimize the target kill capability per total dollars spent on tactical Air Forces. The available sorties over time, including an attrition rate, are determined by other processes.

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Aircraft sorties are allocated to targets using the optimum munition for that aircraft/target combination. Important targets such as tanks are given high target value so they will be killed early in the battle.

Finally, the Marine Corps ground munitions model uses expenditure rates generated from the Army models to determine requirements for a Marine amphibious force fighting for a fixed period of time.

THE BUDGET PROCESS

Munitions procurement budgets are designed both to provide smooth production rates that achieve our training and war reserve stockpiling objectives and to maintain a warm production base for items where we have reached our objectives.

In these cases, the maintenance of a warm base significantly increases the speed with which we can mobilize the industrial base.

The Army, as the Defense Department's central procurement and production manager for conventional ammunition, plays a major role in identifying shortages in the production base against the stated requirements of the military departments. The single manager operates virtually all the Government-owned production base used in full-scale production of conventional ammunition.

However, a sizable share of conventional ammunition requirements is produced by the private sector, especially the metal parts and components that are ultimately loaded, assembled, and packaged in the Government-owned facilities. For conventional ammunition items and components produced by the private sector, the single manager is the procuring agent. There are two aspects to managing the Government-owned base.

First, the single manager must ensure that the base can produce the funded and planned peacetime requirements of all the services in a balanced and efficient manner, and that production capabilities are modernized and expanded to keep pace with the higher technical requirements of munitions now in development.

The second major production base responsibility of the single manager is to ensure a mobilization capability within the base. This means considering first how well the part of the base that is not being used for peacetime production can be applied to mobilization requirements, and, second, how long it will take to bring the mobilization base up to full production capability.

WHAT IS OUR STATUS

Given this process, let me now turn to how we stand. The bottom line is that while we have significantly increased our stockpiles over the past few years, we still have a long way to go in providing adequate quantities of some critical munitions. There are two principal reasons for this.

First, we have reduced our 5-year program by several hundred billion dollars to meet new topline ceilings. There is no way for us to meet our objectives with reductions of that magnitude.

Second, our requirements processes tell us that we need additional, more effective munitions to defeat an enemy that is simultaneously increasing its size and capability.

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For example, we are fielding M1A1 tanks in Europe. These tanks have a larger tank gun in order to be more effective against Soviet armor. This creates a new requirement for a new ammunition round while at the same time reducing the requirement for the old round.

Similar changes are happening in other Army programs. The 120-millimeter mortar is replacing the 4.2-inch mortar Hellfire [vice TOW] is used in our newest attack helicopter. Copperhead is an altogether new capability. These new munitions are expensive, but necessary.

Sustainability has a high priority for resources in the Departments; however, the cost of the program prohibits a rapid buildup. Consequently, there are some high priority munitions that are well short of our objectives.

Let me make a brief aside to talk for a moment about the recent GAO report of our fiscal year 1986 munitions budget. This report was published without a formal opportunity for DOD comment. The fact that many of its findings are not supportable is bad enough.

The GAO findings often take the form of recommending that fundings be deferred to later years. In reality, however, later year programs are relatively fixed in size. Thus, funding deferred is usually sustainability deferred.

WHERE WE GO FROM HERE

We need to develop a strategy to deal with decreasing budgets and increasing threat. Our first priority is to prevent us from getting into the dilemma of accepting early defeat from the initial onslaught or resorting to nuclear weapons.

We must buy those force multiplier munitions that have increased lethality, greater standoff capability, thus higher capacity for massing fires at or near the flot, and greater engagement rates. These munitions will enable us to blunt the first attack and give us the capability to defeat the enemy's attempt for a quick victory.

Thus, sustainability and modernization really get at the same thing. Modernization, by increasing our capability in the crucial early days of the conflict, enhances our survivability and, therefore, our sustainability.

Stockpiles will enable us to sustain our surviving forces and our follow-on forces in combat to limit the enemy advance, and as our later deploying forces arrive, attempt to restore pre-war conditions. This is, of course, an ambitious goal. A highly responsive industrial base is necessary to provide the materiel we would need to achieve that goal.

Our budget and 5-year program strategy is one of optimizing our sustainability through a balanced investment in modernization, stockpiles, and the production base.

This concludes my opening statement. I am now ready for any additional questions you might have.

Senator HUMPHREY. Thank you, Mr. Secretary.

Senator Denton, do you have an opening statement?

Senator DENTON. I do, Mr. Chairman.

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I ask that it be included in the record. In the meantime, I commend you, sir, for putting your finger on the problems as Senators Goldwater and Nunn have. I have not agreed with everything that seems to be in their general thrust respecting the overall reorganization of DOD and JCS, and all that.

I do not pretend that I know all about it, but I did like the major thrust which is indicated in your op[illegible]ng statement that we have things kind of inverted.

We have fiscal restraints set by which we decide how much we are going to spend for our defense and we have that tendency perhaps exacerbated by the concept in the Gramm-Rudman proposal which, although I voted for it, I have reservations about because it does tend to exacerbate that inversion of rationality by which you fix the price of how much you are going to spend for your survival and then, decide how you are going to spend it among the various consumers and users rather than decide what the threat is, how much you need in this functional area or that geographical area and work that out and then come up with a total.

You have your finger on this in your first opening paragraph. It is in cahoots with what the Secretary just said that the real problem with ammunition is simply arbitrary slashes in what is available in the defense budget.

It should not be a surprise to any of us in this body that, therefore, our survivability is tenuous and the prospects for effective foreign relations are not good. We have gotten on the skids since about 1970, or so, and we have to get off it or we are not going to be maintaining our duty status in this body or the other body responding to the constitutional mandate to provide for the common defense.

We are specifically not doing that. We are not even keeping that in mind, and in no other area other than ammunition is that more evident.

I ask unanimous consent that my statement be included as written in the record.

Senator HUMPHREY. Without objection, it is so ordered.

[The prepared statement of Senator Denton follows:]

PREPARED STATEMENT OF SENATOR JEREMIAH DENTON

Thank you, Mr. Chairman. I am very pleased that you have called this hearing, because the subject is truly an important one. As a former attack pilot in the Navy, I well understand the importance of adequate ammunition supplies for our fighting forces.

One of the things that we have learned in every conflict, or that we should have learned, is that ammunition consumption is frequently higher than anticipated not only for conflicts as a whole but for any given target. Whatever doctrine may say about the number of bombs or shells or missiles that should be required to do a job, when you are on the spot trying to get the job done you use whatever it takes.

I remember well that, during the Cuban Missile Crisis, I was flying an A-1 Skyraider that could carry six bombs. My mission orders, which I fortunately did not have to carry out, assigned me five targets, one bomb to each target. I thought that that was pretty bad, but then one of the senior officers, having looked at my orders, wanted to know what I was going to do with the sixth bomb!

We should have learned in Korea something about how many bombs it takes to do a job, but if we had learned it then we had forgotten it by 1962.

We should have learned again in Vietnam. I certainly hope so, and I hope that we have not forgotten it. If, however, we do not have enough ammunition in our stock-

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pile, then it really won't make any difference because there will not be enough to do the job right anyhow.

As you know, that could be a particular problem with our modern, expensive, precision munitions. No matter how good they are, all of them will not work right every time. We need to have enough to try again and again if necessary. The alternative is that we will send men and machines to do the job with less effective ammunition, and we will pay the price in the loss of many of the men and of their machines.

Mr. Chairman, I will examine today's testimony with great interest. You may be sure that you will have my support for taking whatever reasonable measures may be required to ensure that our stockpiles contain enough munitions and that our industrial base is sufficient to produce more in a hurry.

Thank you, Mr. Chairman.

Senator HUMPHREY. I want to say at the outset that this is not intended primarily to be an adversarial proceeding. We have serious problems. They are problems of longstanding and, in my view at least, they are problems that arise out of the mismatch between the commitments that this Nation has made and the willingness of Members of Congress to fund defense adequate to meet those commitments.

It seems to this Senator, at least, that either we must reduce our foreign commitments or we must increase defense funding overall. Nevertheless, we have a certain reality that we have to deal with. Each of us has our respective responsibilities and we will pursue those in good faith.

Mr. Secretary, I have looked through that little red book that the Army puts out listing all of the ammunition production sources around the country, AMCCOM Facts. I would like to own some of that real estate. It looks like the Army Armament Munitions and Chemical Command owns about 10 percent of the whole country.

If you didn't have to deal with political factors and if you could streamline and consolidate ammunition production facilities in this country, what percentage of these facilities would you keep?

I am not asking you to be specific, but give us an idea. What percentage of these are really needed under those conditions?

Dr. WADE. Mr. Chairman, in the sense that it is only in the last few months I have come into this job, let me ask General Bowen to address that.

I would say certainly we can do better in the context of eliminating redundancy, but we have to be careful about the ammunition base.

General BOWEN. The central manager basically is responsible for 2 arsenals and 28 ammunition plants, 16 of those are active and 12 are inactive.

We consistently look at these plants to see if any of them are excess to our needs. I think the answer to the question, sir, is that all that we have right now are needed and we are looking at the possibility of expansion in some of these cases.

Senator HUMPHREY. Is there not a study that has been underway for some years whose release has been delayed over and over again that looks at consolidating this weapons production, ammunition production?

General BOWEN. I am not aware of such a study.

Dr. WADE. We have two studies underway. Part one is the overall cost effectiveness of our program.

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And second, looking at the production capacity and requirement as far as mobilization is concerned.

We expect both of those studies to be available for review in the next several months.

Senator HUMPHREY. Have those been delayed?

Dr. WADE. Well, one study has been slow. It has been quite a few months behind, Mr. Chairman.

Senator HUMPHREY. My understanding from off-the-record information is that one of those studies had been held out out of concern for political repercussions, that the Department does not want to offend some Members of Congress in whose districts plants might be closed.

I just want to encourage the Department to come forward with that study because I have visited some of those plants and they look to me like a Hollywood set from a World War I production. They are disgraceful. I do not see how we can possibly produce ammunition efficiently with that kind of plant and equipment which is not only in bad shape, but which is scattered across this country from one end to the other.

Do you have a concern along those lines, Mr. Secretary?

Dr. WADE. Yes, sir. But I would also note that that concern is present in almost all of the areas of the Defense Department. We went many, many years with a budget that was quite short in the sense of modernizing our program and the real issue here is how best to look at all the priorities with the fiscal restraints in front of us, and establish an appropriate balanced approach toward fixing the plants.

You are right, many of these facilities are old and they need to be fixed.

Senator HUMPHREY. Have you read the op-ed piece published by the Wall Street Journal written by Congressman Smith, Mr. Secretary?

Dr. WADE. Yes, sir.

Senator HUMPHREY. He compares our situation to that of Israel and recounts the experience of that country in the 1973 Yom Kippur War when by day six Israel forces were close to running out of ammunition and without an eleventh hour massive airlift on our part, they might well have been defeated.

Do you see us being in that kind of situation where we might run out of ammunition early on in, say, a NATO scenario?

Dr. WADE. I would say it differently. Namely, over the last 4-plus years the sustainability in our ammunition stocks has increased significantly, I would say by a factor of two. In that context we have done quite well.

You also have to note that there is an alliance in NATO Europe. We could have ammunition for a full 180 days, however, if our allies are in trouble, we have to worry about that as well.

We are still short. We face the problem of early use of nuclear weapons if we are not careful.

We also have to address the problem, not only in the context of ammunition, but in the context of appropriate weapon systems per se that use ammunition. We are behind the power curve in this area, so we are moving forward across the board.

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I agree with you, we are still not there. It will be quite a few years before we are there. I would note also the drawdown we have had in our top line has not helped us in this regard.

Senator HUMPHREY. You say if we are not careful, we might be drawn early on into a nuclear conflict.

What do you mean by being careful?

Dr. WADE. If we run out of ammunition, or even for other reasons, where our weapon systems are not sufficient, the only recourse is to consider the use of nuclear weapons.

Senator HUMPHREY. We are only focusing on ammunition here, of course. If we have substantially inadequate stocks of ammunition, then being careful or not is not going to match, is it?

How do you compensate for alarmingly inadequate ammunition stocks with being careful?

Dr. WADE. I agree with you. If you look where we were 10 years ago, and in 1980 and 1982 we have had a significant increase in our sustaining capabilities, it is nowhere sufficient. We both will agree to that.

But there has been progress. The bottom line is the lack of resources, the lack of funds in reference to getting on and getting better equipment.

Senator HUMPHREY. It can also be expressed as a matter of priorities.

Dr. WADE. I agree with that, sir.

Senator HUMPHREY. With regard to the setting of these stockpile goals in the first place, Congressman Smith makes a number of points in which he indicates that even the criteria on which these stockpile goals are based are faulty.

For instance, he said that:

> During long storage periods of WRM, weapons "disappear." Faulty weapons and munitions that degrade over time and can be identified are often removed from the WRM stockpile and never replaced. After ten years less than half of the original allotment may still exist.

Is that an accurate description of the situation?

General BOWEN. For that ammunition that is in the stockpile we have a very detailed surveillance program. We go through on an annual basis and look at that ammunition and we maintain the serviceability of it.

Of the ammunition we have in that stockpile right now, approximately 4.3 million short tons spread all over the world, we would say that about 86 percent of that ammunition is serviceable at this moment in time and 94 percent of that ammunition is shootable at this point in time if we were to go to combat.

Senator HUMPHREY. Do you count only the 94 percent?

Senator DIXON. I did not understand the distinction there, Mr. Chairman, 86 and 94 percent.

Would the General try that again?

General BOWEN. The 86 percent, sir, is what we would say is serviceable under peacetime conditions. There is some of that ammunition that we would not shoot in peacetime. There may be some type of waiver that has that ammunition set aside for wartime use only.

Nevertheless, it is still effective ammunition that would be fired during wartime.

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Senator HUMPHREY. In counting the days of sustainability, for example, do you count 100 percent of the weapons or only the 94 percent you would use in combat, suitable for use in combat?

General BOWEN. We would count the 94 percent that is shootable in combat; yes, sir.

Senator HUMPHREY. You are saying that his observation is not valid?

General BOWEN. I am not sure where his observation is coming from.

Senator HUMPHREY. Let me read it because I think it is an important point. He said:

> During long storage periods of WRM, weapons "disappear." Faulty weapons and munitions that degrade over time and can be identified are often removed from the WRM stockpile and never replaced. After 10 years less than half of the original allotment may still exist.

Is that correct or not?

General BOWEN. That statement in the area I am talking about, conventional ammunition, does not appear accurate.

Senator HUMPHREY. He is talking about smart munitions.

General BOWEN. If we are talking about smart munitions or guided missiles, something like that, I do not have the statistics.

Senator HUMPHREY. But talking strictly about conventional munitions, you do not count in the stockpile those you would not use in combat because of unserviceability.

General BOWEN. That is true.

Senator HUMPHREY. You only count the 94 percent?

General BOWEN. Yes, sir.

Senator HUMPHREY. Again, in terms of days of sustainability in a NATO scenario, do you take into account many of these munitions are halfway around the world, in the South Pacific or Indian Ocean or some other place?

Or do you just sort of hypothetically assume they are all in one spot, easily accessible?

General BOWEN. We pay much attention to the theater the ammunition is in. We have just completed a redistribution of that munition, moving much of it out of CONUS, over to the European theater or Far Eastern theater as requirements dictate.

Certainly if we go to war in one theater, we could redistribute some of that ammunition back to the theater in which the conflict occurs.

Senator HUMPHREY. Do you take into account in setting the stockpile goals the fact that great amounts will be lost in transit, captured and destroyed?

I would hate to think what is going to happen to those—what are those facilities called in West Germany where all that material is stored in buildings?

I would hate to think what the cruise missiles are going to do to those things unless we are lucky enough to get sufficient notice to move the stuff out ahead of time.

Do you take into account the losses that are certain to occur?

Dr. WADE. The answer is yes.

I also would note a more fundamental point; that is, our requirements, even with all the uncertainty of these inventory models, are underfunded. They are never fully funded.

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Senator HUMPHREY. I understand that problem. I am asking about how the original requirements are constituted in the first place. At the outset in setting these stockpile goals you do take into account the fact that there will be substantial losses?

General BOWEN. Yes, sir.

Senator HUMPHREY. And not assuming all of it will be there for use?

General BOWEN. That is true.

Senator HUMPHREY. Senator Dixon?

Senator DIXON. Thank you, Mr. Chairman.

Secretary Wade, the chairman and I expect most of the members of this committee, read the same sort of material. I would like to go back to what Congressman Denny Smith also discussed in that same article. He argued that:

> The 30-day requirements for supply levels should be immediately replaced by a requirement to store enough munitions to last from the start of war until industrial mobilization can sustain a prolonged conflict.

What do you think about that position as an ideal?

Dr. WADE. As an ideal, that is fine, Senator Dixon. The issue, though, is in reference to meeting the needs, whether it is 30 or 60 days of in-house stock to that 6-plus months; that is a very, very large amount of money.

The question here is: Is that the appropriate place to put your resources vis-a-vis what your near-term immediate requirements will be downstream?

It is a question of balance. We have a major shortfall in this regard. I believe we have been making progress in the sense of worrying about surge requirements, what the base is, but there is an overall lack of money and the question is: Where do you put your funds?

You have to understand that you have to be able to take on and adequately handle the early days of the war first before you start bringing priority toward the very end. Otherwise you have the problem backward.

Senator DIXON. The contrast to that, of course, Mr. Secretary, is that last month the GAO released a report saying about $1.2 billion of the Defense Department's fiscal year 1986 budget request for ammunition should not be provided.

What is your position on that report?

Dr. WADE. We have great difficulty with that report. Most of the GAO reports that come to the Department I find to be very helpful. Perhaps it was an inadequate review at the senior level between the two agencies. In my opinion, both the GAO and certainly we understand that we are vastly underfunded in the sense of what our requirements are.

In this case there were several areas that they found, and I think the services agreed with, as a result of when the analysis was done, that there were better places to use that money, but the bottom line is not to take that money away from the area of sustainability, but it is to better place it in more useful areas and I would underline the more useful area is in those places where we buy more, what I call modernized, highly leveraged systems.

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Senator DIXON. They say the Army's $2.3 billion request for ammunition was overstated by $513 million or 25 percent. This is the first time I have ever heard of this. I would like to hear your response.

Dr. WADE. I think in some areas we disagree, but with part of that we agree. At the time those calculations were made, there were followup requirement analyses done by the Army which suggested there would be some shifting in different areas of our ammunition account.

Here we have a study that was done early to point out deficiencies and we agree with it. It does not mean that money should be taken away or reduced. It should mean to readjust the money to more important areas.

I basically would agree with part of the GAO study, but I do not agree with its conclusion to take money from DOD's ammunition accounts.

Senator DIXON. I believe that is all, Mr. Chairman.

I see my distinguished colleague from Michigan is here. I will yield to him.

Senator HUMPHREY. Senator Levin?

Senator LEVIN. Thank you, Mr. Chairman.

On that point, Secretary Wade, where there was an agreement with the GAO report, was that transmitted to Congress and did we reflect that in our authorization bill?

Dr. WADE. I sense the GAO report was provided to the Congress. We were not asked to formally respond to it. I am not quite clear on that part.

It is obvious that those areas we agree to we will shift that money. I just hope the money is kept and adjusted in those more high priority areas as suggested by the follow-on report.

Senator LEVIN. The Appropriations Committee is now marking up the Defense appropriations bill, I think today perhaps.

Dr. WADE. I followed up with a personal letter to the committee in the sense of that report.

Senator LEVIN. Do they know where you agree and disagree with the GAO report?

Dr. WADE. The answer is yes.

General BOWEN. Speaking for the Army, yes. We have gone over it line by line. We have shown where we had the changing requirements, where they were plussed up and where they were reduced. We have shown where that money should be used, yes, sir.

Senator LEVIN. With the Appropriations Committee?

General BOWEN. Yes, sir.

Dr. WADE. That also is true of the other two services.

Senator LEVIN. Your testimony is very different in some respects from the chairman's opening statement. I was not here to listen to it, but I have tried to read it and catch up in this area. I am involved in budget deliberations and Gramm-Rudman, so I have not been able to be quite as up on this as I want to be.

But the chairman stated he is very sensitive to these areas of sustainability and readiness, that our ammunition problem has gotten worse over time.

Your testimony seems to be that it has gotten better, but not good enough.

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Dr. WADE. Yes, sir.

Senator LEVIN. I am wondering about the different emphasis on that. I have read your testimony, too, today.

Have you provided us with a chart that shows us what improvements you are referring to in your statement?

Dr. WADE. I can, sir, and I believe it best be done for the classified part of the record.

Senator LEVIN. Whatever you can give us in an unclassified way will be useful.

Dr. WADE. We will do it that way, sir.

Senator LEVIN. Can you compare our situation on ammunition with our allies in terms of days of supply?

Dr. WADE. Let me just speak in general terms in an open hearing, Senator.

That is that we have a vast majority of ammunition stocks, both available for NATO Europe and the rest of the world. I think it is an area of great concern as far as I am concerned with that of our allies because, one, if they fall short first and they are on our flanks, we are in deep trouble.

It is an area I want to put emphasis on in this new responsibility of mine, but again it is a very major concern.

Senator LEVIN. Would you be able to compare our situation in the difficult areas of ammunition with our allies?

Dr. WADE. I can provide that.

Senator LEVIN. Can you take a cross section, random?

Dr. WADE. I would rather not try to make a guesstimate of it, certainly in an open hearing, unless General Bowen wishes to.

General BOWEN. Not in an open hearing.

Senator LEVIN. Are we generally better off than our allies?

Dr. WADE. Absolutely, yes, sir.

Senator LEVIN. Significantly better off?

Dr. WADE. In my judgment, yes, sir.

Senator LEVIN. Have our concerns been transmitted to our allies?

Dr. WADE. They certainly have.

Senator LEVIN. And their response?

Dr. WADE. They are responding. We have seen increases in their accounts in the past few years, but again they have a long way to go.

Senator LEVIN. It would be useful if you could supply us with some of their trends over time so that we can compare their trends and our trends.

What about the Soviets, the kind of information we have on their stockpiles, either public or private?

Dr. WADE. I think in this area, like everything else, they have lots and lots of everything.

Senator LEVIN. In general, would you say that their stockpiles are significantly ahead of ours?

Dr. WADE. Yes, sir. That is why for so many years we have been forced, for example, to depend more heavily on our nuclear deterrent.

Senator LEVIN. And will continue to do so.

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Dr. WADE. In part, sir. As you know, we have opportunities through our new programs and technologies to do very, very dramatic changes in the sense of the overall conventional balance.

Senator LEVIN. Do you have the relative cost of that program versus conventional in quality?

Dr. WADE. Well, freedom comes high, Mr. Levin.

Senator LEVIN. I am interested in the cost of one particular set of systems versus another set.

Dr. WADE. The scale is indeed very large on the conventional side.

I also believed in the sense of the place and the balance of our nuclear vis-a-vis the Soviets today vis-a-vis 20 years actually requires we move readily toward addressing the conventional imbalance and moving more closely to a balance.

Senator LEVIN. Would you give us the cost of redressing the conventional balance?

Dr. WADE. I would like to do that for the record.

Senator LEVIN. Thank you.

[The information follows:]

The Soviets have approximately [deleted] days of sustainability. [Deleted.] Simply multiplying required quantities [deleted] by corresponding unit prices yields an approximate [deleted] deficit to achieve [deleted] days of sustainability assuming that the fiscal year 1986 President's budget is executed and also assuming that the required quantities are producible. This latter assumption does not hold in all cases. Some munitions have not reached economic levels of production—some are not yet in the inventory.

Senator HUMPHREY. Mr. Secretary, you feel that we have made progress in addressing the shortfall. I assume you are talking about munitions.

How would you characterize the situation on the production base, itself, in the last several years? Progress? Much the same? Worse?

Dr. WADE. I have not looked at this in detail, Mr. Chairman, but my initial call here would be about the same. We have been working at the problem, but we haven't made as much progress in this area as we have in the sense of what we have been deploying with the forces being used.

Senator HUMPHREY. Have you had a chance to visit any of those facilities yourself?

Dr. WADE. Not for some time, sir.

Senator HUMPHREY. I do not think they have gotten any better.

Dr. WADE. That is my understanding.

Senator HUMPHREY. It is a pretty shocking sight, some of them. My staff has. It is a good point to make that the chairman has one staff assistant to oversee the entire O&M budget which is in the 80 billions of dollars and there is no way we can do a responsible job with the handicap we have of insufficient staff in terms of numbers. It happens that Mr. Kelly works 12-hour days.

In any event, my staff has visited these facilities in recent weeks and months and reports they are in pretty shocking condition.

I, myself, toured some several years ago. I was, myself, shocked at how shoddy and inefficient they appear to be.

Now, getting back to the adequacy of our stockpiles, in setting our stockpile objectives, do we take into account the very substan-

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tial lead time that would be necessary to get these facilities back into shape to produce?

General Bowen, you are in charge of production, are you? You do not get into the long-term planning and setting of goals?

General BOWEN. Absolutely.

Senator HUMPHREY. I want to understand where you are coming from.

General BOWEN. I get into looking at the long-term capabilities of that production base and capability and how long it will take for it to be able to produce the ammunition we need for mobilization purposes.

Senator HUMPHREY. In the setting of overall munitions goals by DOD, does the Department take into account the fact that there will be substantial time required to get these plants back up to speed or are you assuming that they are ready to go and it will not take very long?

General BOWEN. When the Army receives the OSD Defense Guidance, which identifies the overall munitions goals, it must first identify requirements. Once the requirement is identified, procurement profiles are identified, and production base responsiveness is assessed because of the fiscal constraints, the Army understands that it is not even close to being able to sustain itself until such a time as these plants can be brought back up to mobilization rates.

Senator HUMPHREY. In setting the stockpile goals, the deteriorating condition of the mobilization base is taken into account for you?

Is that what you are saying?

General BOWEN. Once the requirement has been defined and procurement profiles developed, the production base responsiveness is then assessed. There is no question that we have an inventory of every one of the plants, the number of lines, the condition of the equipment, and we have furnished that information to the Congress, sir.

At the same time, having said that, there is also no question that in order to reach mobilization rates, we probably have in the neighborhood of a $65 billion challenge.

Senator HUMPHREY. A $65 billion backlog in capital improvements?

General BOWEN. In improvements, equipment and facilities, that need to be made to that production base, yes, sir.

Senator HUMPHREY. Has that backlog been growing, shrinking or has it remained much the same in the last 2 years?

General BOWEN. At the present time that production base has been able to produce the funded 5-year requirements.

Senator HUMPHREY. You say that we have a $65 billion backlog in needed improvements to the production base.

Is that a larger figure than it was a few years ago?

General BOWEN. That is a larger figure than it was when General Pike testified a few years ago.

Senator HUMPHREY. So, the situation in the production base is deteriorating?

General BOWEN. Yes, sir.

Senator HUMPHREY. Is there a plan in the 1986 or 1987 submission to address that deterioration?

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General BOWEN. We have tried to set aside $30 million each year to be able to put toward the most urgently needed improvements.

Senator HUMPHREY. $30 million.

General BOWEN. Yes, sir; we have been unsuccessful because of TOA constraints and trying to balance our total program.

Senator HUMPHREY. You have asked for 30 and you have gotten zero. How much have you gotten?

General BOWEN. We have gotten zero.

Senator HUMPHREY. There has been no money forthcoming from Congress? Where was that cut? DOD or here?

General BOWEN. That would have been cut within Army.

Senator HUMPHREY. So, there have been no funds applied to work down the backlog? In fact, it has grown?

General BOWEN. That is true if we are talking about meeting the mobilization requirements. We have made improvements in modernizing facilities to meet our 5-year program. We have initiated a 15-year enhancement program where we spelled out what needs to be done.

At the time that was laid out, we were looking at using somewhere in the neighborhood of $500 million a year over and above what would be set aside in our TOA for that purpose.

Senator HUMPHREY. When DOD starts out to set these stockpile goals, what terminology is applied to that process? What term is applied to those ideal goals? Is there a term for that?

General BOWEN. I call it total requirements.

Senator HUMPHREY. Let us talk about 1986.

What part of the total requirement is requested in the authorization.

General BOWEN. For all of OSD I would have to furnish that for the record, sir.

Senator HUMPHREY. I am just talking about the things that we have jurisdiction over here; namely, the conventional ammunitions.

General BOWEN. Because of my role as the single manager, I do not see the total requirement. So, I would have to furnish that for the record.

Senator HUMPHREY. The point I am trying to make is that the total requirement itself is substantially cut even before submission to the Congress.

Dr. WADE. No question about that, sir.

I would also add here when we talk about production base and deterioration of production base, certainly the first priority is to fill up the stocks as far as requirements in being are concerned.

Knowing the Soviet threat, size and quality of their weapon systems, that requirement has been increasing in the past years. Therefore, the overall requirement in front is increasing. One can make the argument that the production base requirement will deteriorate in part if the requirement over time gets larger.

This is certainly the case and it is one reason why you have an answer that the production base over time has been going down.

Senator HUMPHREY. You took issue with the GAO study. I perused through the rebuttal and it sounded credible to me.

How can we facilitate greater cooperation between GAO and the Department of Defense so that GAO reports are a value to Congress?

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Dr. WADE. I think overall, Mr. Chairman, the interaction and coordination between the Department and GAO has been very, very good 95 percent of the time.

I think in this case there was not a formal request for comment and review like there normally is. I think that was a request of the requesting committee. So, in general terms I think we do very well with each other.

I do not want to use this as an example of our interaction with GAO. I think their work and interaction and coordination has been superb over the past years. I just take issue with this one report because the implication is that we have too much money in our ammunition accounts and I think we all understand that that is not true.

Senator HUMPHREY. Getting back to the production base again, has the Department of Defense considered closing some ammunition facilities or consolidating them?

Dr. WADE. Not that I am aware of, Mr. Chairman.

General BOWEN. It has been considered, but we have not been successful in doing so.

Senator HUMPHREY. Why was it considered?

Dr. WADE. I guess some of it is political. In cases where it would appear that the workload would not justify keeping some of those plants open we have been encouraged to keep them open and in operation.

Senator HUMPHREY. It seems to me that if we are in desperate straits with respect to conventional ammunition as we are, we ought to be looking for every opportunity and Members of Congress likewise should be looking for every opportunity for efficiency.

When was consolidation last considered? Is there an ongoing study?

Dr. WADE. We have ongoing workload studies looking at our 5-year requirement which indicate to us which plants should be phased down and which ones should be increased.

Senator HUMPHREY. How far along are those studies?

Dr. WADE. Those studies are continuous, sir; they do not stop.

Senator HUMPHREY. We never see them.

Dr. WADE. These are in-house studies.

Senator HUMPHREY. Are there any studies underway which are intended to be made available to the Congress?

Dr. WADE. I know of none at this time, no.

Senator HUMPHREY. What studies are available now? What studies are underway?

Dr. WADE. I know you are familiar with the RDX-HMX effectiveness study that we owe you and that is currently being staffed at the Army staff right now. I understand it may come across next week.

Senator HUMPHREY. I am going to find some way to get into this because, frankly, I am getting my blood pressure up that we are keeping open some plants apparently out of political considerations at a time when we desperately need to find efficiencies so that we can buy ammunition and not votes.

How can you help me get this information? Do you have a study now that you can make available to this committee?

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Dr. WADE. We do not have a study at this time, Mr. Chairman. The answer is no.

Senator HUMPHREY. You say you have an ongoing effort to study consolidation and other efficiencies.

What becomes of the studies?

General BOWEN. We have ongoing workloading analyses that enable us to look at what workload is going to be available for those plants during the next 5 years.

Senator HUMPHREY. I am talking about consolidation, General Bowen.

Do you have studies that are underway that deal with consolidation?

General BOWEN. I do not have an actual, what we would call a study underway to look at consolidation of those plants. That would be within the production base modernization effort that we have already furnished to the Congress.

Senator HUMPHREY. My time is up. We may well have to request a specific study. I think it is well worth looking into. I think there can be public support generated for consolidation and modernization. It strikes me that is long overdue.

Senator Levin?

Senator LEVIN. Thank you, Mr. Chairman.

Mr. Secretary, has DOD proposed consolidation and closing of those facilities to the Congress and been rebuffed?

General BOWEN. I am not sure that we have submitted a report to Congress proposing closing or consolidation of any of those facilities.

Senator LEVIN. I do not know where they all are. Maybe some of them fall in my hometown. I would think if DOD thinks they ought to make savings, they ought to tell us. That should be a noncontroversial statement.

In any event, I think you should tell us. If Congress does not do it, for whatever reasons it sees fit, the responsibility lies here. But you ought to focus that responsibility by making the request. I know of no other way to do it.

Until then I think we are kind of just struggling to get studies and chasing rumors. You know, do what you think is right and we will do what we think is right. The public can judge whether either of us know what we are doing. I guess.

Now, the request for ammunition for 1987 to 1991, you submitted your budget, I understand, to the OSD; is that correct?

Dr. WADE. Yes, sir.

Senator LEVIN. Can you give us the figures for 1987 to 1991 for the Army's budget submission?

Dr. WADE. I can provide it for the record. I do not have them with me.

Senator LEVIN. Why don't I tell you what it is.

Dr. WADE. Yes, sir.

Senator LEVIN. Does, General Bowen know?

General BOWEN. Our fiscal year 1986 budget commitment, for example, was for $2.6 million.

Senator LEVIN. What are you asking for 1987?

General BOWEN. $1.8 billion was hardware and $310.2 million for production base.

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Senator LEVIN. What is your 1987 request, 1987 through 1991?

Dr. WADE. We are going through the 1987 review right now. There is nothing final.

General BOWEN. I am told that the current budget figure for 1987 is $2.1 billion.

Senator LEVIN. You are asking less for 1987 than DOD asked Congress in 1986; is that correct?

General BOWEN. Yes, sir.

Senator LEVIN. By a significant amount of money, half a billion?

General BOWEN. Yes, sir.

Senator LEVIN. Is it not true that your 1987 request is based on 3 percent real growth in the budget?

Dr. WADE. The answer is yes.

Senator LEVIN. So that the Army having been told 3 percent real growth, I assume, is still asking the OSD for about a 25-percent reduction in ammunition?

General BOWEN. As a result of TOA restraints and attempts to balance the total Army program, that is true, yes, sir, in ammunition.

Senator LEVIN. You have more money overall next year, you have been told, long before Gramm-Rudman?

We are talking about assuming 3 percent real growth. With the assumption, the Army then has 25 percent less ammunition. I have trouble with that one.

Dr. WADE. Senator Levin. I am not going to defend that number, but the services, as a result of the several hundred million drawdown from what the plan was 6 months ago, have looked at it in the sense of optimizing that drawdown and when you balance the munitions account versus some of the other new hardware and programs underway, this was their input to OSD.

So, I do not think you can look at the problem in isolation.

Senator LEVIN. The facts speak for themselves?

Dr. WADE. The facts speak for themselves.

Senator LEVIN. You talk about drawdown and optimizing, a whole lot of words like that; in fact, they are pretty eloquent. They become much more difficult after Gramm-Rudman goes into effect.

If that is the best that the Army is going to be asking for ammunition, assuming 3 percent growth, asking for 25-percent reduction in ammunition, hold on to your hats, folks, if those are the priorities of the Army or the administration.

Of course it has not filtered through yet, but if these are the priorities, it seems to me that we have made some major changes in where our priorities lie. At this rate it would take us 5 years to get back to where we are in 1986, which is below where you say we have to be.

As I understand your submission, General, 2.1 or 2.2 for 1987 and it goes up gradually in 1991 to 2.6, which is the figure you are at in 1986, it is a matter of priorities, not a matter of rhetoric about the price of freedom. We have to make some priorities, too. We have to make some very difficult decisions on priorities.

I am only looking at one. This is a priority that we put some emphasis on and is so critical and yet the shortage is very, very serious. We have to look at the whole picture, I agree with the Secre-

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tary. We have to put some eggs in a very uncertain, unknown basket and we are paying a price for it and this is the price.

Senator HUMPHREY. Mr. Secretary, this goes back to the criteria by which the—what is the highest estimate of need? What do you call that?

Dr. WADE. Total requirements.

Senator HUMPHREY. A couple of years ago I guess at DOD's initiative the Department changed over to a D-plus-six concept in the sense that the total requirement was set to last 6 months after which it was assumed that industrial production would come in and provide as much as was being consumed in combat.

Before the Department went to the D-plus-six concept, we had, I understand, something called a D-to-P concerning start of war to the date production would actually be sufficient to replace losses. D-plus-six sounds arbitrary to me. We have talked about how dilapidated and how unready our production base is and it has gotten worse.

Where does this 6-month figure come from? What is sacred about 6 months? What relationship does that have to reality?

Dr. WADE. The basic number is not all that real. It is a planning criteria on which you are planning and hoping mobilization will be up and producing ammunition.

Senator HUMPHREY. Do we know how long it will be to get the base up and producing?

Dr. WADE. You do it on an item-by-item basis. In many of the areas it will be a great deal longer than that.

Senator HUMPHREY. It just seems to me it is dishonest to be pursuing the D-plus-six concept when we know that D-to-P is going to be substantially greater for most items.

Dr. WADE. I think that is fair to say, yes, sir.

Senator HUMPHREY. I believe I asked the question earlier: Does DOD take into account the very long leadtime that will be necessary to get production up?

And I think the answer was yes, sir.

Dr. WADE. Yes, sir. Once the requirement is determined, the responsiveness of the production base is assessed.

Senator HUMPHREY. In fact, the D-plus-six is fantasy. In fact, in setting the total requirement, we are not taking into account how long it will take for production to get up. We are deluding ourselves with the D-plus-six fantasy.

Dr. WADE. Not in the sense, Mr. Chairman, primarily it is a budget problem in the sense of being able to get to D-plus-six. When you have a certain amount of money, I think you will agree to go ahead and fix up the stocks for our in-being forces.

You have to then put your priority toward the earlier periods of the war which I don't think our models adequately address. It is true we have shortfalls in the surge and mobilization base. We have been working on it, but it is slow. Again, it is a fiscal problem facing us.

Senator HUMPHREY. I am aware of that. We might be able to help you with the fiscal problem if Congress were shocked, knowing how bad the situation is, if we do not resort to these delusions about D-plus-six and many other things.

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I am going to have to take an important phone call and recess the committee here for just a moment.

[Recess.]

Senator HUMPHREY. May we have order, please.

Secretary Wade, I guess that is about as far as we can go now in open session. We do have other witnesses that we want to take in open session. I will have to ask you to defer for a while before you offer your classified testimony.

Our next witness will be Congressman Denny Smith.

Thank you for coming.

STATEMENT OF HON. DENNY SMITH, A REPRESENTATIVE IN CONGRESS FROM THE STATE OF OREGON

Representative SMITH. I have had a little difficulty today. At any rate, I am glad to be here. I appreciate your letting me appear at this point.

Let me begin by thanking you for inviting me here today.

I think the issue of war reserve munitions is an extremely serious one, and on behalf of our country's young fighting men, I want to express my gratitude to you for bringing the subject up for careful scrutiny.

I will be brief in my testimony, and if you would allow, I would like to insert in the record an editorial I recently wrote that appeared in the Wall Street Journal on the adequacy of our war reserve munitions.

Senator HUMPHREY. Fine.

[The editorial follows:]

[From the Wall Street Journal, Oct. 29, 1985]

RESTOCK INADEQUATE MUNITIONS RESERVE

(By Denny Smith)

The U.S. and its allies must build up their munitions stockpiles immediately. The need for such action is best demonstrated by recounting an incident during the 1973 Yom Kippur War. By day six of that war Israeli forces were close to running out of munitions. Without the help of an 11th-hour massive munitions airlift by the U.S., the Israelis would have been driven into the sea.

The lesson learned? Israeli war planning fell far short in establishing the proper level of war reserves. They, like the war planners of most Western nations, established a war-reserve requirement that is based on a huge gamble, a gamble that war would not come or that a war could be won in a few days.

Alarmingly, the U.S. is in precisely the same condition as was Israel prior to the Yom Kippur War, with one important exception. We have no one to bail us out.

Always present during times of fiscal austerity is the requirement of stretching a military budget. In this budget-stretching game, War Reserve Munitions (WRM) take a back seat to the procurement of glamorous, sophisticated and expensive weapons carriers. Our own Defense Department places the lion's share of money into the procurement of a relatively small number of expensive weapons platforms, and gambles on the notion that either sufficient WRM will somehow materialize the future or that it is simply not important.

MYTHOLOGICAL JUDGMENTS

The problem with this practice is, if you gamble wrong, you lose a war.

There is an old saying among fighter pilots: "A fighter plane without munitions is just another unscheduled airline." Unfortunately, our own war-reserve planning is based on a series of mythological judgments that may be better suited to operating the world's largest airline instead of winning a war.

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In a war, particularly a major war in Europe, our forces are certain to meet a massive number of enemy tanks. At last count, Warsaw Pact tanks outnumbered NATO tanks 2½ to 1. The Warsaw Pact has amassed 50,000 tanks and produces 3,600 more each year. The destruction of a certain percentage of these tanks by U.S. forces in a major war is allocated to the Air Force. The remainder of the task is left to the Army.

For the sake of illustration, let us assume that the Air Force must destroy a mere 10% of these tanks. A "probability of kill!" (Pk) is assigned to various Air Force weapons to destroy enemy tanks—probabilities ranging as high as 0.85 Pk (i.e once the weapon is fired, the assumption is that there exists an 85% chance the weapon will destroy its target). Thus the total number of Warsaw Pact tanks times 0.10 divided by 0.85 would provide a rough estimate of war requirements for a particular munition. From there, a procurement objective is established for the first 30 days and 60 days of a war.

With two exceptions the current Air Force munitions level, even calcualted using such a loose set of assumptions as desceibed above, does not approach even the 30-day war requirement. Some other rules of thumb that aren't considered include:

The probability of kill assigned to each weapon is almost always optimistic. The original claim for the Air Force's "Sparrow" missile was a Pk of 0.85. In operation it actually achieved a kill ration an order of magnitude lower.

In the case of Air Force air-to-ground weapons assigned to kill tanks, the assumptin that weapons will be fired only at tanks in a delusion. For every weapon fired at a tank it is probable that 20 will be fired at trucks, armored personnel carriers and other enemy vehicles.

During long storage periods of WRM, weapons "disappear." Faulty weapons and munitions that degrade over time and can be identified are often removed from the WRM stockpile and never replaced. After 10 years less than half of the original allotment may still exist.

Even the strongest advocates of hightech weaponry and "smart" missiles will acknowledge that 20% to 30% of the weapons will not work due to an inherent complexity that increases their likelihood of failure. When war begins these weapons are worthless, and unfortunately cannot be identified beforehand.

Once a war commences, munitions will be lost at a tremendous rate—a factor also not considered in the calculations of WRM. These include munitions that go down with a lost aircraft or resupply ship, those lost when a base or depot is overrun by enemy advances, munitions stored in the Pacific theater while the war is in Europe and munitions lost in the chaos of war.

U.S. war planners are content to gamble on a high-stakes, winner-take-all, shortwar scenario that risks lives and jeopardizes the freedom of the U.S. and its NATO allies. Content with less than a 30-day supply of munitions, it seems our war planners must be operating from one of four assumptions:

There won't be a war. This is a wonderful hope, but a dangerous assumption. If our conventional-munitions stockpile is known to be inadequate, our policy represents the opposite of deterrence. In fact, it only makes war more likely since it is an invitation to attack.

There may be a war, but it's one we can win in just a few days. Some people believe a short, vicious blitzkrieg type of war is possible. Possible, yes. But if the Soviets win, we lose. If NATO forces could stop an initial massive Soviet armored thrust there would have to be a second, much longer and brutal campaign to regain our initial losses. With the Soviet's massive advantage in heavy armor, no serious observer believes that NATO would win a short war.

Losing a war is not all that bad an option. No one believes that losing Europe to the Soviets is an acceptable option. Today, the world industrial centers are the U.S., Japan, Europe and the Soviet Union. A new alignment in which Europe is enveloped in the Soviet Bloc would completely disrupt the balance of power.

We'll resort to tactical nuclear weapons when the going gets tough. This option, unfortunately, is all too real. However, it raises serious questions: Will the use of tactical nuclear weapons be allowed in Europe? If so, will their use escalate the conflict to the strategic nuclear level?

Assume for the moment that they will not be used. We then face the specter of embracing option three (losing Europe to the Soviets is an acceptable option) because, as is evident, our pitifully small WRM stockpiles surely do not support the pipe dream expressed in option two (we can win a major war in just a few days). "Use 'em or lose 'em" inevitably will be the driving philosophy as NATO starts to lose a conventional war.

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Once tactical nuclear weapons are employed it is certainly a madman's guess as to whether their use can be contained or if one side will escalate into an all-out nuclear exchange.

These scenarios can be avoided. The U.S. and NATO have the resources to ensure an adequate WRM stockpile to deter and quite possibly win a conventional war in Europe if the Soviets attack.

In 1980 the Pentagon budget was $130 billion. Today, after five years of low inflation, that budget is now $300 billion. Yet our WRM stockpiles are still in sad shape. Only 4% of the Air Force's budget, 4% of the Army's and 5% of the Navy's are earmarked for munitions procurement.

The services currently are drafting and revising plans for their FY 1987 budgets. To date, the Air Force has contemplated its needs and decided that 22% of its "cuts" to meet budget constraints should be applied to the paltry 4% of the budget dedicated to . . . munitions.

Even at that, cuts were not applied evenly across the munitions budget. The low-cost 30-mm bullet, the one truly proven and tested antitank killer, was zeroed out. Air-dropped cluster munitions, land mines and other simple munitions took cuts of about 50%. The remaining munitions budget was dominated by two weapons: the IIR Maverick missile and the Amraam radar missile.

Both of these weapons are enormously complex and expensive, and neither has ever passed a genuinely combat-relevant test. But spending for each system approaches a billion dollars a year. Funding of the Maverick was cut about 10%. Funding for the Amraam was actually increased more than 10%.

STRAIGHTFORWARD REFORMS

This week, Sen. Gordon Humphrey (R., N.H.), chairman of the Preparedness Subcommittee of the Senate Armed Services Committee, will begin the first of four hearings to address the problem. Reforms in this area are fairly straightforward.

War-reserve munitions budgets for all of the services should be at least doubled. Also, allowances for munitions loss rates and inefficiencies must be included in future calculations of WRM requirements.

Furthermore, we should not purchase any munitions until they pass sufficient, strenuous testing in combat simulations.

And finally, the 30-day requirement for supply levels should be immediately replaced by a requirement to store enough munitions to last from the start of war until industrial mobilization can sustain a prolonged conflict. This period is typically as short as six months, but could be as long as 18 months.

If the U.S. and its allies are not willing to initiate these steps throughout their armed services they will continue to walk hand in hand down a path that unnecessarily endangers the lives and liberty of free people throughout the world.

Representative SMITH. I would like to summarize that editorial for you, Mr. Chairman, and following that, I would like to pose some questions that I hope your subcommittee will ask of the Defense Department on the subject of war reserves.

The points I would like to summarize are these:

One, in light of the huge budget increases given to the Defense Department over the past 5 years, our war reserve munitions stockpiles are in pitifully sad shape compared to where they ought to be.

Two, the United States and its NATO allies are not dedicating enough of their funding toward their war munitions stockpiles.

Three, our current methods of calculating our war reserve munitions stockpile goals are not grounded on reality. The chaos, confusion, and operational mayhem associated with combat are not factored into our war reserve munitions calculations. Our war reserve munitions needs are greatly underestimated.

Four, it appears that the services' budgets planned for 1987 are only continuing this dangerous trend.

Five, and finally, these are all problems that the Congress and the administration, working together, can solve if they are willing to recognize the seriousness of the situation.

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Mr. Chairman, the issue of the adequacy of our war reserve munitions, like most subjects concerning our national security, is a complicated one. I leave it to your subcommittee to use its expertise to study the heart of the problem.

But I would like to offer a few simple questions that need to be answered in a straightforward fashion by the Defense Department that are crucial to solving our war reserve munitions problems.

One, what is the empirical basis for setting 30 days as a war reserve munitions requirement?

Two, considering the likely magnitude of a conventional war in Europe, how do our war reserve munitions requirements square with the levels of munitions actually expended during previous major wars?

Three, should a conventional war in Europe expend our current level of war reserve munitions, what is the Defense Department's estimate of the time needed to bring our country up to full industrial mobilization to continue a war?

What are the associated cost estimates?

Four, what is the precise manner in which the DOD calculates our war reserve munitions requirements?

Five, what is the probability of kill assigned to each of the munitions in our war reserve munitions stockpiles?

Can the DOD provide to the Congress valid operational test data that confirms in the case of each weapon, that the munition meets the expected requirement?

Six, does the DOD adjust its war reserve munitions requirements for expected operational losses and inefficiences?

If so, how are the calculations made?

Seven, what is the percent of our war reserve munitions stockpiles that has been removed during the past 20 years?

What percent has been restored to the stockpile?

Eight, what are the services' current plans for budgeting funds for our war reserve munitions stockpiles in 1987?

What were the services' plans for 1980 through 1985?

Have those plans translated into reality?

There are several other important questions that I think need to be asked, but in the interest of time, I would like to just submit these additional questions for the record.

Mr. Chairman, I know that you will receive, or have received, testimony before you today that paints our war reserve munitions situation in a more positive light. You may hear statements that there is no problem.

Perhaps the only suggestion I can offer to you in that case is that if you believe that one, I have a gun called the Sergeant York that I would like you to buy.

All the overwhelming evidence on the Sergeant York suggested we were buying our fighting men a real piece of trouble, yet we heard nothing but great praise for the gun from the DOD prior to its cancellation.

Fortunately, we have some conscientious soliders, men I would call warriors, who are willing to cut through the bureaucratic bean counting and budget politics to tell it like it is for the sake of their men.

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I am speaking of soldiers like General Rogers in NATO and Gen. Homer Smith, a man who has lived and breathed logistics during his entire career who now serves as the Director of Logistics for NATO's international staff.

General Rogers has stated that given the size of his ammunition stockpile, he has to measure NATO's conventional sustainability in days rather than weeks.

General Smith agrees with General Rogers and has pointed out that lack of ammunition to fight a prolonged war is his greatest concern.

Our permanent representative to the North Atlantic Council, Ambassador David Abshire, has stated:

> The problem today is that NATO has not maintained conventional capability fully adequate to respond in a measured way to a Soviet attack. Especially troublesome are serious deficiencies of certain ammunition stocks. This means that NATO's security is dependent increasingly on threatened early nuclear escalation.

Mr. Chairman, perhaps I can shed a little bit of personal experience on the subject to bring the issue a little closer to home.

When I was in Vietnam in 1965 and 1966 the then Secretary of Defense constantly testified to the Congress, as reported to those of us in Asia, that there were plenty of bombs to be utilized.

Yet many times we went out with airplanes loaded with two 250-pound firecrackers, virtually without the capability to really utilize the F-4 that I was flying and without the ability to damage the enemy with great risk of loss of the airplane.

So, I think that you could get testimony from almost any aviator that flew there from 1965 to 1967 that we were short of ammunition.

I think you are to be commended for bringing this hearing to the fore and I would just hope that we get some good answers that will provide the fighting solider with the ability to extend the fight to the enemy should that happen. My concern, of course, would have no relevance if we never get into another war, whether that be the case.

I do appreciate your bringing this subject before the subcommittee and I stand ready to assist you and your subcomittee and the Defense Department in bringing the country's warfighting capability up to a level that we can ensure our freedom.

Thank you, Mr. Chairman.

I would like to submit these additional questions for answers by the Department of Defense and I will be happy to answer your questions.

Senator HUMPHREY. Fine. We will incorporate your questions in the record and include them with others which we will be submitting ourselves to the Department of Defense.

Congressman Smith, you state that our current method of constructing the stockpile goals are not grounded in reality.

Can you expand a little bit on that?

Representative SMITH. I think we have gone to an arbitrary number of days that might not be very reasonable, given what we might be faced with.

I think we would be better off to know that we had a certain number of days in which to crank up our industrial capacity to

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produce more weapons, if need be, to keep a constant flow of weapons to any battlefield that might develop.

One of the things we pointed out in the op-ed piece was the fact that many of the war reserves might not be in the right theater. If the right theater is the Pacific and the ammunition is stored in Europe, it is not going to do us an awful lot of good if you happen to be on the frontline.

We have to be realistic about the fact if we get into a shooting war, it is different than calling a time out and having a new football sent in. We are really going to be faced with dropping small weapons or inadequate supplies to sustain a longer term battle which we might have than, say, the arbitrary 30 days.

I think it is more important to find out when we can start replenishing the stocks.

Senator HUMPHREY. You characterize the stockpile as being in pitifully sad condition.

Have you seen any improvement?

Representative SMITH. One of the things we have been looking at recently is the Air Force budget and missiles and the armament. One of the reasons I got interested in this was looking at AMRAAM and Maverick missiles.

When we have 4 percent of our budget and 2 percent of it is going into those two weapons, neither of which has been tested very well, it makes you wonder what's up. The fact that we are shutting down the GAV-8 30-millimeter line was the key factor for me in trying to look at how we are going to utilize the WRM we are talking about.

I suppose in the instance of the AMRAAM we ought to have those dollars not in the armament budget because it is not a fully tested weapon at all. I think we have launched four of them, one just a ballistic right out the end of the "rifle," so to speak, and the other three have been in a testing mode, but strictly developmental testing.

We should not be having our ammunition budget go into R&D and that is what is happening here. So, in these areas, I am really curious about the answers to the questions, Mr. Chairman.

Senator HUMPHREY. Very well.

We much appreciate your contribution, Congressman, both in this House and in the other.

Thank you for your testimony.

Representative SMITH. Thank you, Senator. I appreciate the opportunity to be here. If we can help in any way, let us know.

Senator HUMPHREY. The next witness is Henry W. Connor, Senior Associate Director (Army), National Security and International Affairs Division, General Accounting Office.

Welcome, Mr. Connor.

Do you want to read your whole statement?

Mr. CONNOR. I can do it either way. In the interest of time, I could highlight it.

Senator HUMPHREY. We will be satisfied with that.

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STATEMENT OF HENRY W. CONNOR, SENIOR ASSOCIATE DIRECTOR (ARMY), NATIONAL SECURITY AND INTERNATIONAL AFFAIRS DIVISION, GENERAL ACCOUNTING OFFICE, ACCOMPANIED BY RAYMOND DUNHAM AND PETER KONJEVICH

Mr. CONNOR. We appreciate the opportunity to appear before your subcommittee today to discuss our annual reviews of the military services' ammunition budgets. Our ammunition reviews date back to the Army's fiscal year 1973 program.

Our most recent report issued on September 16, 1985, evaluates the President's budget request of $5.3 billion for ammunition items and $368.4 million for enhancing ammunition production facilities.

In that report we concluded that about $1.1 billion of the funds requested for ammunition items and $129.2 million of the funds requested for ammunition production facilities should not be provided in the fiscal year 1986 budget.

I would like to make clear right up front that our recommended reductions do not impact the readiness of our forces because we do not question the services' stated ammunition requirements. Our recommendations are based on our findings that:

One, on-hand inventories and undelivered funded quantities were sufficient to meet stated needs.

Two, unit cost estimates were overstated.

Three, part or all of the quantities requested could not be delivered within the fiscal year 1986 program timeframes.

Four, the requests were premature because of technical and other problems.

What I would like to do, is provide you some details about our annual ammunition reviews, covering such topics as:

One, why we do the reviews.

Two, how we go about doing them with a few examples of our rationale for recommending funding reductions.

Senator HUMPHREY. Inasmuch as I am the only member here, permit me to interrupt you and that will cut down on the questions later on.

You are just saying that you have recommended reductions in effect for extraordinary reasons.

Mr. CONNOR. Because we believe the budget as stated cannot be executed in the fiscal year 1986 program.

Senator HUMPHREY. You are not challenging the overall need to substantially improve our stockpile position?

Mr. CONNOR. No, sir; we are not. Let me cite one example in my statement which best illustrates that.

For many of the newer war reserve items, the existing inventory and program quantities are far below the wartime requirements and even the lower programming level prescribed by defense guidance.

However, notwithstanding severe shortages, there are often valid reasons for not providing funding for specific ammunition items. For example, in reviewing the Army's fiscal year 1985 program for 8-inch improved conventional munitions, we observed that there were virtually no rounds in the inventory and program quantities were far below requirements.

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Yet, we recommended a substantial reduction in the fiscal year 1985 program because the quantities could not be produced within the fiscal year 1985 program period because of an existing production backlog. While the item was certainly needed, funding in fiscal year 1985 was not. Such funding would serve only to increase the production backlog and would not improve readiness.

I would like to cite some other examples.

Our review of the services' fiscal year 1986 program surfaced several different situations which resulted in the services requesting more funding than needed.

For example, the Army overstated its request for 40-millimeter high-explosive cartridges by $13 million because it used the wrong unit cost. Increasing the quantity was not feasible because the Army was having difficulty producing existing funded quantities.

Another example was the Navy's request of $1.6 million for 60-millimeter mortar cartridges which was overstated by $1.4 million because the Navy used the wrong unit cost.

Senator HUMPHREY. How does that happen?

In the context of the overall budget, it is not impressive, but how does that happen?

Mr. CONNOR. It happens in various ways.

Mr. DUNHAM. The Navy got a price from the Army single manager and it was an oral price. They used that in their budget preparation. Later on the single manager gave them a firm price which was considerably lower, but the Navy did not update its budget submission.

Mr. CONNOR. I think that was a rather unique one in terms of the size of the difference, but in many cases the budget figure that the Army and the services use is put together early on and when we do our review, we find the actual contract prices are much less than the figure used in the budget.

Senator HUMPHREY. Why cannot you folks get together and iron out these differences before it becomes a kind of contest?

Mr. CONNOR. I would like to say something to that because Dr. Wade did comment on the fact that they did not have the opportunity to formally comment on our report, and that is true.

Because of the time constraints, we were not able to solicit, as we normally do, formal comments. However, the way we do this review, we provide fact sheets and questions to both appropriations committees in the March-April timeframe for use in the appropriations hearings.

At that time the committees ask the services these questions and receive their responses. Basically, their responses are their positions on the issues that end up in our report.

In addition to that, when we have the final report put together which this year was about June, we send copies of that draft report to the services and meet with them to elicit their comments. If you read the report, you will see in most every section the services' positions, not the official DOD position, but the services' positions.

Senator HUMPHREY. What is your response to their response?

Mr. CONNOR. I think we described that in each section. If they do not concur and we disagree with that, we set forward the facts as to why we disagree.

Senator HUMPHREY. Will you continue?

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Mr. CONNOR. Another example was the Air Force request for 30-millimeter cartridges which included $3 million for components to support a container repair program. However, we found that the Air Force plans to discontinue container repair after the fiscal year 1985 program. There was no need for that $3 million.

In addition to determining whether the item can be produced within the budget year program period, as discussed earlier, we attempt to determine whether technical or scheduling problems mitigate against funding the item.

For example, in reviewing the Army's request for $6.7 million in fiscal year 1986 for 4.2-inch mortar cartridges, we found that the Army suspended this cartridge from use except for war emergency and declared it unsafe for future procurement.

The Army estimates it will take about 2 years to redesign the cartridge. However, funding for the redesign had not been provided at the time of our review. It is obvious they could not or would not use those funds in the 1986 program period.

In assessing the request for ammunition production facilities, we concentrate on the need for the facilities, their design status, cost data and site selection. We determine both the peacetime and mobilization requirements for the items the facilities are designed to produce.

We review alternatives to building the facility; for example, is the product available from the private sector, as well as the methodology the Army used in selecting the facility site? We determine the extent to which design has been completed and the basis for the Army's cost estimates.

Each year the Army receives omnibus funding for facility design. Congressional guidance precludes funding projects when final design is not complete. In our review of the Army's fiscal year 1986 facilities program, we found that final design had not been completed for two projects and that site selection had not been made for one project.

A similar situation existed last year. In fact, one of the facilities for which design is not complete this year was not funded last year because of incomplete design.

Mr. Chairman, this concludes my prepared statement.

I have with me Mr. Ray Dunham who has had overall responsibility for our ammunition reviews for the last 5 years.

I also have Mr. Peter Konjevich who has had direct responsibility for our ammunition reviews for the last 5 years and has been associated with our ammunition reviews since their inception.

We will be pleased to answer any questions you may have.

[The prepared statement of Mr. Connor follows:]

PREPARED STATEMENT OF HENRY W. CONNOR, SENIOR ASSOCIATE DIRECTOR (ARMY), NATIONAL SECURITY AND INTERNATIONAL AFFAIRS DIVISION

Mr. Chairman and Members of the Subcommittee, we appreciate the opportunity to appear before your Subcommittee today to discuss our annual reviews of the military services' ammunition budgets. Our ammunition reviews date back to the Army's fiscal year 1973 program. Our most recent report issued on September 16, 1985, evaluates the President's budget request of $5.3 billion for ammunition items and $368.4 million for enhancing ammunition production facilities. In that report we concluded that about $1.1 billion of the funds requested for ammunition items

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and $129.2 million of the funds requested for ammunition production facilities should not be provided in the fiscal year 1986 budget.

I would like to make clear right up front that our recommended reductions do not impact the readiness of our forces because we do not question the services stated ammunition requirements. Our recommendations are based on our findings that (1) on-hand inventories and undelivered funded quantities were sufficient to meet stated needs, (2) unit cost estimates were overstated, (3) part or all of the quantities requested could not be delivered within the fiscal year 1986 program timeframes, and (4) the requests were premature because of technical and other problems.

What I would like to do, is to provide you some details about our annual ammunition reviews, covering such topics as (1) why we do the reviews, and (2) how we go about doing them with a few examples of our rationale for recommending funding reductions.

WHY WE DO THE REVIEWS

Our work in this area started in the early 1970s when the Chairman of the House Appropriations Committee asked us to review the Army's fiscal year 1973 appropriation request for enhancing ammunition production facilities. Starting with the fiscal year 1977 program the Committee expanded its request to include the review of Army ammunition items. Subsequent requests expanded the scope of our work to include reviews of Navy, Air Force, and Marine Corps ammunition items. Recently, other committees have also requested the reviews. The Senate Appropriations Committee asked us to review the fiscal year 1984, 1985, and 1986 programs and the House Armed Services Committee asked us to review the fiscal year 1985 program. The basic objective of our work is to attempt to answer the question of whether the program should be funded in the amounts requested by the services.

The committees ask us for two products (1) fact sheets and questions on ammunition items and production facilities for use during hearings in the March/April timeframe and a report for use during budget mark-up in the July/August timeframe.

HOW WE DO THE REVIEWS

In our review of ammunition items, we focus on whether the quantities requested are needed and can be produced within the budget year program period. In addition, we attempt to determine whether unit costs are reasonable and whether technical or other problems are unresolved.

The primary factors we consider in establishing need are requirements, inventory and projected consumption. Among other things we identify the inventory objectives for war reserve and training unique ammunition over several years and attempt to determine reasons for significant changes. We compare the projected inventory position at the end of the budget year program period with the level prescribed by defense guidance i.e., days of supply. We determine whether the programs for items needed to constitute a complete round (e.g., projectile, fuze and propelling charge) are in reasonable balance. We evaluate the feasibility of renovating existing unserviceable stocks as an alternative to procurement. For some of the newer systems, such as the Bradley, we compare weapons and ammunition delivery schedules. Finally, we contrast forecast training consumption with recent actual consumption to determine whether forecasted consumption is realistic.

For many of the newer war reserve items, the existing inventory and program quantities are far below the wartime requirements and even the lower programming level prescribed by defense guidance. However, notwithstanding severe shortages, that are often valid reasons for not providing funding for specific ammunition items. For example, in reviewing the Army's fiscal year 1985 program for 8-inch improved conventional munitions we observed that there were virtually no rounds in the inventory and program quantities were far below requirements. Yet we recommended a substantial reduction in the fiscal year 1985 program because the quantities could not be produced within the fiscal year 1985 program period because of an existing production backlog. While the item was certainly needed, funding in fiscal year 1985 was not. Such funding would serve only to increase the production backlog and would not improve readiness.

For many of the training unique ammunition items, the existing inventory and program quantities are above inventory objectives. However, before making recommendations to reduce the request because inventory exceeds objectives we consider the extent of the excess and the potential impact of any program reductions on ammunition production facilities.

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In assessing costs we compare year-to-year costs changes for ammunition items and major components. We assess reasonableness of cost projections by comparing unit costs in the budget with those obtained under recent contracts and those on published price lists. We review individual service requests to assure that the services are using the same unit costs for identical items. Finally, we determine whether improper costs are included in the total, whether components in stock are available and whether the item will be procured in the configuration described in budget support documents.

Our review of the services' fiscal year 1986 program surfaced several different situations which resulted in the services requesting more funding than needed. For example, the Army overstated its request for 40-millimeter high explosive cartridges by $13 million because it used the wrong unit cost. Increasing the quantity was not feasible because the Army was having difficulty producing existing funded quantities. Another example was the Navy's request of $1.6 million for 60-millimeter mortar cartridges which was overstated the $1.4 million because the Navy used the wrong unit cost. The Navy's request was for an uneconomical quantity of 1,900. Therefore, we recommended that the Navy increase the program to 12,100 cartridges. This quantity would permit the Navy to achieve its inventory objective and still reduce the budget request by $700,000. Finally, the Air Force request for 30-millimeter cartridges included $3 million for components to support a container repair program. However, we found that the Air Force plans to discontinue container repair after the fiscal year 1985 program.

In addition to determining whether the item can be produced within the budget year program period as discussed earlier, we attempt to determine whether technical or scheduling problems mitigate against funding the item. For example, in reviewing the Army's request for $6.7 million in fiscal year 1986 for 4.2-inch mortar cartridges we found that the Army suspended this cartridge from use except for war emergency and declared it unsafe for future procurement. The Army estimates it will take about 2 years to redesign the cartridge. However, funding for the redesign had not been provided at the time of our review. Similarly, the Navy requested $6 million for the 30-millimeter cartridges for use on A-4 and F-4 aircraft after they have been retrofitted with 30-millimeter guns. However, the research and development program to retrofit the guns had not been funded. Finally, the Air Force requested $2 million for one type fuze for which operational testing has not been completed. It is highly unlikely that such testing will be completed to permit timely execution of the fiscal year 1986 program because only one B-1B bomber is available for the testing.

In assessing the request for ammunition production facilities we concentrate on the need for the facilities, their design status cost data and site selection. We determine both the peacetime and mobilization requirements for the items the facilities are designed to produce. We review alternatives to building the facility, e.g., is the product available from the private sector, as well as the methodology the Army used in selecting the facility site. We determine the extent to which design has been completed and the basis for the Army's cost estimates.

Each year the Army receives omnibus funding for facility design. Congressional guidance precludes funded projects when final design is not complete. In our review of the Army's fiscal year 1986 facilities program we found that final design had not been completed for two projects and that site selection had not been made for one project. A similar situation existed last year. In fact, one of the facilities for which design is not complete this year was not funded last year because of incomplete design.

Mr. Chairman, this concludes my prepared statement. I will be pleased to answer any questions you may have.

Senator HUMPHREY. Are you planning a review for 1987 as a permanent practice?

Mr. CONNOR. We get a specific request each year from the Appropriations Committees. We have not received it yet, but we expect to get it.

Senator HUMPHREY Have you done any studies in the area of consolidation for efficiency of production base?

Mr. CONNOR. No. We have done no such studies of the production base.

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Mr. DUNHAM. GAO did one back in 1976 on the Lone Star Plant looking at efficiency of operations. I was not involved in that particular effort, but we did issue a report on that.

Mr. CONNOR. We have been a long time advocate of a single manager for conventional ammunition; requirements, production capability, and so forth.

Senator HUMPHREY. Is it within your jurisdiction to examine the premises on which the total requirement is based?

Mr. CONNOR. Not under these Appropriations Committees' requests.

Senator HUMPHREY. If a request were made?

Mr. CONNOR. Yes, we could look at that.

Senator HUMPHREY. Do you have resources to critique that process?

Mr. CONNOR. Yes, sir.

Senator HUMPHREY. I think we need to do that.

If the request were made to study efficiency of the production base in the munitions plants and potential for consolidation, you have resources to do that?

Mr. CONNOR. Yes, sir.

Senator HUMPHREY. You can expect requests.

Mr. CONNOR. Yes, sir.

Senator HUMPHREY. I think we have asked all we need to ask at this point.

Thank you very much, Mr. Connor.

We will now go into closed session and ask those who do not have security clearances to leave the room.

[Whereupon, at 4:31 p.m. the subcommittee proceeded in executive session.]

EXECUTIVE SESSION

Senator HUMPHREY. Let us come to order.

What is the situation in specific terms, Mr. Secretary?

Dr. WADE. Pardon me, sir?

Senator HUMPHREY. Will you begin by characterizing in specific terms the status of the stockpile, where the critical shortages are, what we are doing about it?

Dr. WADE. In specific terms, as I said before, since 1980 we have doubled the days of sustainability.

Senator HUMPHREY. From what to what?

Dr. WADE. We are at approximately [deleted] percent of what we would consider to be the fiscal year 1991 requirement.

Senator HUMPHREY. That is meaningless to me. Maybe that means something to you.

Where are we in days of supply?

Dr. WADE. Mr. Chairman, you are talking about threat level ammunition. Every one is different. You have the level of supplies in terms of days. You just cannot break that down into one or two figures because everything is quite different.

Senator HUMPHREY. Can you say something classified? Why are we in classified session? Do you have specifics?

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Dr. WADE. In 1986 we are [deleted] percent toward the requirement in 1991 as far as days of supply are concerned. I can go through all these numbers. I think we are doing very, very well.

At the same time we are in dreadful shape vis-a-vis the overall needs of our ammunition.

Senator HUMPHREY. In what area?

Dr. WADE. I think in the area of modern ammunition. That is the thrust we should be putting most of our emphasis on in the future, the equipment with modern platforms that have highest leverage up front. These are equipments that the Soviets have.

Senator HUMPHREY. Smart weapons?

Dr. WADE. Yes, sir.

Senator HUMPHREY. How are we doing in the area of dumb weapons, conventional weapons?

General BOWEN. From an Army standpoint, if you want to talk days of supply or days of sustainability, for fiscal year 1986 with the President's budget we submitted we would have been at [deleted] days.

Senator HUMPHREY. Where are we now irrespective of where we would have been?

General BOWEN. That would be up from fiscal year 1985 from [deleted] days. That is modernized and standard munitions together.

Senator HUMPHREY. Can you break that out?

General BOWEN. I have it for modernized. With the modern ammunition, we were [deleted] days.

Senator HUMPHREY. By modern, you mean smart weapons?

General BOWEN. No, I do not. That is our new improved ICM-type munitions.

Senator HUMPHREY. Canister-type weapons?

General BOWEN. Ones having special fragmentation effects, ones with bomblets inside them.

Senator HUMPHREY. You say we are at a level of [deleted] days supply over all?

General BOWEN. Overall, considering both types, with the present budget in fiscal year 1986, we would be [deleted] days.

Senator HUMPHREY. I am asking where we are, not where we would wish to be.

General BOWEN. In fiscal year 1985 we are at [deleted] days.

Senator HUMPHREY. When 1985 is executed, you will get [deleted] days?

General BOWEN. Yes.

Senator HUMPHREY. Is that an average figure?

General BOWEN. That is the average figure for all munitions, yes.

Senator HUMPHREY. Give me some examples of ones that are at the bottom of the range.

General BOWEN. I would think Copperhead would be one example. Certainly we do not have what we require in the M483 ICM munitions or in other 155-millimeter munitions.

Senator HUMPHREY. How many days of supply do we have of that?

General BOWEN. I do not have it in front of me, sir. I will have to furnish it for the record.

[The information follows:]

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Information on all Army munitions is attached. [Deleted.] Inventory levels are shown as of the fiscal year 1983 through fiscal year 1986 funded delivery periods. Days of supply against the fiscal year 1991 objective are shown for fiscal year 1985 and fiscal year 1986. Although days of supply could have been calculated for fiscal year 1983 and fiscal year 1984 on a similar basis, the results would be difficult to interpret. Fiscal year 1983-84 budgetary data previously submitted to Congress were based on a methodology and on usage rates different from those now being employed. The Army has developed an improved way of calculating days of supply and has updated usage rates based upon the latest runs of its simulation models. You should note that these days of supply do not equate to current sustainability if we were to fight today. To measure our current status, one should compare inventory to a fiscal year 1986 objective.

Senator HUMPHREY. That does not really help a whole lot.

Can you now make an estimate of where we will be based on the progress in the 1986 budget?

Can you make some estimate of where will we be a year from now?

General BOWEN. If we get the 1986 budget?

Senator HUMPHREY. Not as submitted.

General BOWEN. The way it is progressing, no, I do not have calculations that give me the new days of supply.

Senator HUMPHREY. I am going to ask that you supply the committee with classified material showing the actual days of supply for each of the items which this subcommittee has jurisdiction, the days of supply for each of those and where we were in 1983 and 1984 and where we will be at the end of the execution of 1985.

Then we can see what we need to know, the specifics.

Dr. WADE. Yes, sir.

Senator HUMPHREY. You will not have any trouble supplying that?

General BOWEN. No, sir; we can do that.

Senator HUMPHREY. How long will that take?

General BOWEN. Within 24 hours.

Senator HUMPHREY. You do not have to work that hard. A week is fine.

You have no charts or statistics on hand?

General BOWEN. No, sir.

Senator HUMPHREY. I do not see any point in pursuing this in general terms. We will simply make the request for further submission and take it from there.

I fully intend to pursue this and, hopefully, we can make some greater progress. As I said at the outset, it is a real problem. We do not have enough resources to cover all our responsibilities.

This is a very dangerous situation and I have the obligation of at least bringing the magnitude of the thing to the attention of my colleague, if not the public. We will be pursuing this in a number of further hearings and through other requests.

Thank you.

Dr. WADE. Thank you, sir. We look forward to it.

[Questions with answers supplied follow:]

QUESTIONS SUBMITTED BY SENATOR GORDON J. HUMPHREY

Senator HUMPHREY. In reference to ammo and munitions requirements—the numbers, quantities, and/or days of supply, is the Congress seeing the total needs in the DOD budget request?

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There is a general misconception that the request would meet the extended conflict and multiple engagement scenarios.

What portion in funds or percentage, of the total needs is the Congress dealing with?

Just a rough percentage is OK to keep it unclassified.

Dr. WADE. The Defense Guidance [DG] defines midterm objectives for munitions procurement. For level-of-effort [LOE] munitions, the fiscal year 1987-91 DG directs the services to fund [deleted]. For threat munitions, the corresponding goals are [deleted]. The services' budgets attempt to reach these objectives, but fiscal constraints do not permit their full attainment. Army, Navy, and Marine Corps budget backup shows progress toward one or both of these goals. The Air Force's budget backup shows only procurement for powered munitions and a 180-day objective for nonpowered munitions.

The ultimate goal for stockpile procurement is D to P. No service is anywhere close to this goal. It takes from 6 months to 2 years to fully mobilize the production base for a single munition and oftentimes this maximum production is short of the mobilization requirement.

All services calculate their requirements on the basis of 180 days for an illustrative planning scenario involving [deleted] DG midterm objectives are therefore probably less that [deleted] of the total D to P need. If one assumes that the service buys about one-fifth of the DG objectives in any single year; that is, the requirement can be bought in 5 years, a single year's budget is less than [deleted] of the total LOE munitions need.

In the case of threat-oriented munitions, a single year's procurement is probably closer to 15 or 20 percent of the total need, using the above 5 years as an optimistic rule of thumb.

Senator HUMPHREY. We know there are large shortfalls in ammo supplies, both day to day and stockpiles.

Do you have a dollar estimate of the magnitude?

The Army has stated the production base shortfall could be $55 billion.

What are the plans to address that rather large need?

Dr. WADE. The fiscal year 1991 mid-term stockpile objectives in the Defense Guidance are [deleted]. Assuming that the fiscal year 1986 President's budget is executed and that the required quantities are producible, it would take approximately [deleted] to meet these objectives.

With regard to the production base, the Army, in its fiscal year 1986-90 5-year program, developed a $250 million yearly program of projects to correct some production base shortfalls. Unfortunately, fiscal constraints and the relatively low priority assigned to this effort—as compared to stockpile shortages—forced this program to be unfunded.

Senator HUMPHREY. In answers to congressional requests and GAO studies, DOD has promised to address ammo shortfalls and the supporting industrial preparedness.

What is the status of these efforts to develop a policy?

Dr. WADE. I don't know exactly what promises you are referencing. The Department strives to balance its resources in a way that will increase our capability both in the short term and in the long term. Sustainability is accomplished through a combination of modernization, stockpiles, and industrial preparedness. We need to develop and procure modern force multiplier munitions that will inflict heavy damage and halt Soviet advances in the early days of a conflict. We will then transfer to the more conventional munitions in our stockpiles while at the same time surge the industrial base to produce the munitions necessary to maintain the fight. Naturally, this is a very complex area and the optimal balance is difficult to attain; however, the Department is attempting to execute this three-pronged approach to sustainability.

Senator HUMPHREY. Given the fact that GAO recommends substantial budget reductions each year, what is DOD doing to tighten up its procedures to minimize budget reductions?

Dr. WADE. Your question implies that GAO recommendations are correct. The GAO publishes its ammo report without Department review. Congress often assumes the GAO is correct and reduces our budget. This is a poor procedure and harmful to the very important area of ammunition procurement. DOD disagrees with many of the GAO findings. In most cases where DOD does agree, the GAO used information not available when the budget was submitted.

In these cases, it is more appropriate for Congress to reallocate funding within the ammunition accounts rather than cut the budget. DOD's procedures are tight.

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Better quality control is needed to prevent the GAO from publishing unreviewed findings.

Senator HUMPHREY. Has the Department prepared formal comments on GAO's published report on the fiscal year 1986 ammunition program?

Dr. WADE. Formal DOD comments are being prepared. They will be sent to GAO around the beginning of the year.

Senator HUMPHREY. What has the Department done to address the deficiencies highlighted in GAO's 1983 report "Observations Regarding the Ammunition Production Base" (GAO/PLRD-83-38)?

Dr. WADE. Because of fiscal constraints and higher priorities of competing programs, funding is not available for this effort at present.

Senator HUMPHREY. I am interested in correcting these shortfalls in ammo and production base, but aware of the budget constraints.

Has DOD considered closing some ammo plants; consolidating production lines; or getting more civilian contractors involved, either at their facilities or at ammo plants?

Can closures or consolidation save funding?

Can we stimulate interest for contractors to use the ammo facilities for other products, while being able to cross over to ammo needs in case of a mobilization?

Dr. WADE. While consideration has been given to closing some ammunition plants, no plants have been closed since the end of the Vietnam war. The active ammunition plants are in areas where they provide major support for the local economy. Therefore, any indication that a plant may be closed usually results in strong pressure to keep it open.

Wherever possible, consolidation or multiple uses of a production line have been effected. Except for three plants: Crane AAA, McAlester AAP, and Pine Bluff Arsenal, our ammunition plants are operated by civilian contractors.

Closures and consolidation would save funding. It should be noted, however, that while a premium is paid to operate plants at less than economical rates, a measure of preparedness is achieved by maintaining a cadre of trained personnel that can be utilized as a nucleus for expanding production rapidly during emergency and mobilization conditions.

Ammunition plants generally cannot readily be utilized for other purposes/products. In addition, the Department would be reluctant to provide government facilities to enable one contractor to compete with another who made a capital investment to produce the same product.

Senator HUMPHREY. What are the conditions with the storage and transportation assets necessary to support ammo activities? Peacetime? Mobilization?

Dr. WADE. Worldwide ammunition operations and activities presently are being supported satisfactorily. There are no known peacetime constraints or adverse conditions limiting storage facilities or transportation assets. Ammunition logistics capabilities obviously will be stressed during mobilization conditions. Studies have indicated a potential problem with our ability to move ship ammunition due to overaged containers and materiel handling equipment [MHE]. However, programs are in effect to fund the procurement of new MILVAN shipping containers and MHE. It is estimated that adequate ships, rail assets, and trucks are available to move ammunition during mobilization. A definitive intra-CONUS movement requirement and validation process is presently underway.

Senator HUMPHREY. How about security around production, supply, and storage of ammo and weapons?

Are you increasing security for terrorist threat?

Dr. WADE. Security of ammunition and weapons is provided by a combination of security guards (military or civilian), fencing, security lighting, locks, and intrusion detection systems. Storage facilities are constructed according to specified standards. High security risk items, e.g., manportable missiles, automatic weapons, and high explosives receive the highest security protection.

As the criminal or terrorist threats to ammunition and weapons increases at the local level, security measures are increased to meet that threat. For example, transportation security requirements have been upgraded to meet the increased terrorist threat; additional security measures are being considered.

Senator HUMPHREY. Does the DOD plan to incorporate any of the Army suggestions in the "Initiative to Reduce Ammunition Mobilization Deficiencies" study into the fiscal year 1987 budget?

Dr. WADE. Fiscal constraints precluded funding any of the Army's initiatives in the fiscal year 1987 budget.

Senator HUMPHREY. In your testimony you stated that you determine whether items are needed. What do you use as your criteria for determining need?

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Mr. CONNOR. We use requirements provided by the services to determine need.

Senator HUMPHREY. What were the results of your evaluation of need?

Mr. CONNOR. For many ammunition items, especially the newer ones, the requirements are substantially greater than assets on-hand and programmed.

Senator HUMPHREY. In your testimony you stated that the services do not need $1.1 billion requested for ammunition. Yet, there are supposedly severe shortages of ammunition. It would seem that budget increases rather than decreases are in order. Please comment.

Mr. CONNOR. We are aware that the services have not attained their inventory objectives for ammunition. To achieve these objectives would undoubtedly require substantial increases in funding for several years and accelerating production at ammunition plants. However, our role in the process is to determine whether the items in the services budget requests need to be funded in the budget year under review. While inventory is short of objectives, providing funds for ammunition which cannot be delivered during the fiscal year program period will not enhance the inventory.

Senator HUMPHREY. Do the GAO reviews consider changes in requirements since the budget was prepared? If so, how are requirements increases and decreases treated?

Mr. CONNOR. We use the most current requirements data available in arriving at our final positions. For example, in this years' review we used the Army's requirements for the fiscal years 1987 through 1991 planning period. The Army also used these requirements in its April 1985 responses to fact sheets and questions. There were both increases and decreases in requirements and we considered both. Of the $198.2 million recommended reduction because inventory exceeds requirements, about $44 million is attributable to decreases in requirements. Since we recommended budget reductions for most items for which requirements increased we could not logically recommend increases to programs for these items.

Senator HUMPHREY. The GAO has reported on deficiencies in the ammunition production base. Yet, GAO has recommended reductions in funding for enhancing ammunition production facilities. This appears incongruent. Would you please comment?

Mr. CONNOR. We recognize that there are deficiencies in the ammunition production base. However, our recommended reductions are based on deficiencies in the proposed programs for specific budget years. Given the deficiencies in the base and the availability of omnibus engineering funds for design, we would expect to find very few problems with the annual facilities programs.

Senator HUMPHREY. Dr. Wade testified that DOD did not have an opportunity to formally respond to your report on the fiscal year 1986 program before it was published. Why not?

Mr. CONNOR. We agree that we did not ask the Department to formally respond to the GAO report. In fact, the relatively short timeframe between our getting access to budget backup data and the required reporting date essentially precludes obtaining formal comments. However, we did provide copies of our proposed report to the services in June 1985, and met with appropriate service headquarter officials to discuss our conclusions. We included the views of these officials in our final report. A representative from the DOD Inspector General's office attended our meetings with Navy and Air Force program officials. In addition, in March 1985 we provided OSD and the services copies of our fact sheets and questions for congressional committees on ammunition items and facility projects which were later discussed in our report. The committees requested responses to these questions from the services and the services' responses, in effect, constitute the services' position on the issues.

Therefore, although we did not solicit formal comments, DOD and the services did have the opportunity to review and comment on our report issues 3 to 6 months before its publication.

Senator HUMPHREY. Do you anticipate doing a review of the services fiscal year 1987 request for ammunition?

Mr. CONNOR. Yes.

QUESTIONS SUBMITTED BY SENATOR ALAN J. DIXON

Senator DIXON. Mr. Connor, in a recent report GAO recommended that the Congress not provide $1.1 billion, or 20 percent, of the $5.3 billion requested ammunition items in the fiscal year 1986 Defense budget.

You say in your statement that these reductions "do not impact the readiness of our forces because we do not question the services' stated ammunition require-

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ments". How can you say that a 20-percent reduction to the Defense budget request for ammunition will not effect readiness?

Mr. CONNOR. Although reductions may not appear to be supportable when examining the total ammunition inventory shortages reported by the services, our analysis indicated that additional funds should not be provided for some individual items because of multiple problems noted in the report. Our recommended reductions were based on our findings that (1) onhand inventories and undelivered funded quantities were sufficient to meet stated needs, (2) unit cost estimates were overstated, (3) part or all of the quantities requested could not be delivered within the fiscal year 1986 program timeframes, and (4) the requests were premature because of technical and other problems.

Senator DIXON. Mr. Connor, your statement suggests that the $1.1 billion reduction which GAO recommended to the fiscal year 1986 Defense budget for ammunition was based on items that either were not needed or could not be executed. Did your auditors ever look at other ammunition programs to which this $1.1 billion could be reallocated in order to speed up production and delivery of other ammunition items that are needed but are in short supply?

Mr. CONNOR. We reviewed a list of items prepared by the Army for which there were shortfalls. However, many of the items on the list were items for which we were recommending budget reductions in the fiscal year 1986 program. Therefore, notwithstanding the shortfalls, we believe an increase to the fiscal year 1986 program for these items was not warranted. An increase would serve only to increase a production backlog and would not enhance readiness or sustainability during the fiscal year 1986 program periods.

QUESTIONS SUBMITTED BY SENATOR JOHN GLENN

Senator GLENN. Dr. Wade, you stated in your testimony that in the determination of ammo requirements, your ability to simulate combat is marginal at best. Are you saying that your ability to determine ammo requirements is based on less than adequate methods?

Dr. WADE. The methods used within DOD to determine ammo requirements are good. These methods model combat to the best of our ability and are constantly being improved as we develop ways of making them more realistic. Since we cannot perfectly predict the results of combat, the methods must make some simplifying assumptions. The ammo requirements generated are a reasonable estimate of what we expect to use.

Senator GLENN. You indicated that the Air Force and Navy Tactical Air Threat Munitions and level-of-effort ordance requirements are based on the same criteria. My question is: do both services use the same method or model for determining like weapon requirements, i.e., Sparrow air-to-air missiles, MK-82 500 pound bombs, etc.?" (If not, why not?)

Dr. WADE. Although both services use the same criteria to select a "least-cost-per-kill" munition for a specific aircraft/target combination, the models are different. The principal reason for this difference is that the Navy and Air Force employ their forces in different ways. They therefore are expected to perform different missions, facing different targets and different target distributions. Similar factors are considered, but these factors do not affect each service equally.

Senator GLENN. Dr. Wade you stated that you still had a long way to go in providing adequate quantities of some critical munitions. This comment was followed immediately by the statement that DOD had reduced its 5-year program by several billion dollars.

As you know, I have been very critical of munitions shortfalls, especially vital munitions like MK-48 torpedoes and captor mines. Earlier this year I made the statement "We buy these big, grey, beautiful ships—and no ammo. It may be penny-wise, but it is pound-stupid."

Do you think it is possible to achieve a more reasonable balance between platform and munitions procurement?

Dr. WADE. We achieve the best balance that we can between platform and munitions procurement; however, we cannot guarantee that we always make the optimal decision. Tradeoffs between these are very difficult to make, and unfortunately, the tight budgets we are facing in the future make such tradeoffs increasingly necessary. I hope that we can continue to improve our ability to make the best decisions.

Senator GLENN. Dr. Wade the SASC fiscal year 1986 authorization bill directs the DOD to develop a master plan for establishing an overall acquisition strategy for

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threat-based munitions. Do you think such a plan will be helpful? If so, do you think level-of-effort ammo should be included?

Dr. WADE. The SASC directed acquisition master plan is helpful. The plan will provide an "umbrella" framework for establishing specific target-oriented munitions master plans. These target-oriented plans encompass both threat-based and level-of-effort based munitions. Therefore, no additional requirement specific to level-of-effort munitions is needed.

QUESTIONS SUBMITTED BY CONGRESSMAN DENNY SMITH

Representative SMITH. The DOD munitions budget is dominated by a few extremely complex and sophisticated weapons.

For example, well over half the Air Force munitions budget is required for just three weapons, the IIR Maverick, AMRAAM, and HARM.

Why?

Dr. WADE. The percentage of Air Force Munitions Budget required for IIR Maverick, AMRAAM and HARM from 1984 to 1986 is approximately 40 percent, not well over half. In any case, the capability gained from AMRAAM, HARM and IIR Maverick more than justifies the expenditure.

AMRAAM is a joint Air Force/Navy program to provide us the multiple engagement, launch-and-leave air-to-air missile necessary, if we are to prevail fighting outnumbered against opposing aircraft of increasing capability.

HARM is critically needed to replace the current inventory of 1960's technology, antiradiation weapons. We face a diverse, dense network of surface-to-air missile threats. HARM gives us the needed destructive defense suppression.

IIR Maverick provides a standoff, launch-and-leave weapon with which we can destroy key enemy targets across a wide spectrum of day, night and limited adverse weather. No longer would an enemy be free to move his armor at night with impunity.

With constrained budgets, it is of fundamental importance to strike a balance between force-multiplying, modern munitions and lesser technology sustaining munitions. The Air Force carefully reviews this balance each year through the preparation and review of our requirements plan, the Non-Nuclear Consumable Annual Analysis [NCAA], and our munitions acquisition plan [MAP].

While AMRAAM, HARM and IIR Maverick count for a sizable portion of our total munitions budget, they provide essential capabilities that cannot be forgone if we are to win the all important air battle, survive enemy defenses, and destroy enemy armor from the relative safety of standoff.

Buying exclusively low-technology inexpensive weapons can produce a false sense of security by providing theoretical days of supply while, in reality, losing the war in the intense early days.

Representative SMITH. Thirty-millimeter ammunition, cluster munition, and mines are relatively inexpensive programs. These all have taken major cuts or have been zeroed out.

Why?

Dr. WADE. The 30mm cannon ammunition, combined effects [cluster] munition, and Gator mines are relatively inexpensive programs when compared to more expensive precision guided or target sensing munitions. Significant funding levels to enhance force sustainability were planned for these items. However, the DOD budget guidance emanating from the fiscal year 1986 Congressional Budget Committee's report required significant adjustments to the DOD and Air Force budget levels. Since fixed operating costs and must-pay bills had to remain funded, cuts had to come from discretionary procurement accounts. The hard decision to reduce or eliminate munitions procurement was made in order to comply with anticipated adjusted budget levels from congressional deliberations.

Representative SMITH. We have been informed that the IIR Maverick, AMRAAM and HARM are substantially dependent or completely dependent on very complex subsystems.

Please provide the combat relevant OT&E tests that have been conducted where these weapons and their subsystems have been tested as an integrated system.

Dr. WADE. The information on IIR Maverick can be found in AGM-65D infrared Maverick initial operational test and evaluation. The information on HARM can be found in AGM-88 High-Speed antiradiation Missile [HARM] initial operational test and evaluation. Both reports are attached. No OT&E has yet been conducted on AMRAAM. AMRAAM is in early DT&E.

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Representative SMITH. Please provide a list of the weapons that are scheduled for us in a European conflict.

Dr. WADE. Nearly every munition in our inventory may potentially be used in European conflict. [Deleted.]

Representative SMITH. Please provide OT&E test results for these weapons.

Dr. WADE. You are asking for OT&E test results for every munition in the inventory. This information is voluminous and would take a great deal of effort to provide. We will be glad to show you the specific OT&E test results on any particular munitions for which you have an interest.

Representative SMITH. Please provide the war reserve material that is in existence for each of the above weapons.

Dr. WADE. [Deleted.]

Representative SMITH. How many days of combat surge activities can be accomplished with each weapon at the program rates of consumption?

Dr. WADE. The information requested for the Navy and Marine Corps has already been sent to Congress as part of their budget backup material. Another copy is enclosed at attachments 1 and 2, respectively. The information requested for the Army can be found in the insert for the classified record. [Deleted.] The information requested for the Air Force is [deleted].

Representative SMITH. For those weapons above that are aircraft employed, provide the number of sorties this equates to.

How many attack passes can be made on each sortie for each weapon?

Dr. WADE. For those U.S. Air Force tactical munitions identified in the insert on page 74, line 3, the Air Force can support [deleted]. The total requirement can be supported using substitute munitions; however, attrition will be higher.

It is possible, on tactical aircraft, to release one weapon per pass. Therefore, the number of passes per sortie could equal the payload. Howeve, due to tactical consideration, in a defended area it may be desirable to release all of the carried weapons on a single pass. In many instances this would increase the effectiveness of the sortie and greatly reduce aircraft exposure, thus reduce attrition.

The Navy models generate requirements for [deleted] Marine Corps air attack and fighter sorties. All of these sorties can be flown.

Representative SMITH. What percentage of the war reserve munition of each weapon is prepositioned in Europe?

Dr. WADE. The information requested is [deleted] for the Army, Marine Corps, and Air Force respectively. Navy prepositioning is primarily aboard ships.

Representative SMITH. Do we plan on resupplying weapons from the U.S. stockpile to Europe?

Will we take PACAF and send them to Europe?

Dr. WADE. Munitions stockpiled in the United States will be resupplied to Europe. Depending on the circumstances, JCS would decide whether or not to allocate PACAF assets to Europe.

Representative SMITH. Will resupply be accomplished by ship or aircraft?

Dr. WADE. Both, as appropriate.

Representative SMITH. How long will it take to move our entire stock of munitions to Europe by the method of transportation contemplated?

Dr. WADE. There is no single right answer to this question because the time required will depend on such variables as the amounts of ammunition in CONUS and in Europe when the deployment occurs, whether Europe is the only theater involved, and the priority the theater CINC and the JCS accord to the movement of ammunition vice unit equipment or other resupply. Both the United States and NATO-flag fleets contain a large number of containerships. As our ability to move ammunition in containers improves, we will be better able to move ammunition without competing with the deployment of units.

Representative SMITH. How many sorties of each type of air munitions can/will be carried per C-141 or C-5 load?

Equate this to attack passes.

Dr. WADE. The Air Force normally plans to pre-position its munitions assets. Munitions would be air lifted only under special circumstances dictated by specific operational conditions. The number of sorties that could be carried are therefore a function the mix of munitions needed for the specific scenario.

Representative SMITH. Do we have the air cargo lift capacity available to carry these munitions?

Will other cargo requirements out-prioritze munitions?

Dr. WADE. We do not now have all of the cargo airlift we need, and we do not include the movement of munitions in our airlift requirement because pre-positioning is the preferred alternative for providing munitions early in a war in Europe.

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Nevertheless, there will always be some requirement to move munitions by air—no pre-positioning program will ever be perfect—and such movements will have to be given an appropriate priority.

Representative SMITH. General Smith, Director of NATO's Logistic Staff, said recently that our NATO allies have an absurdly low ammunition supply of [deleted].

Is this true?

Dr. WADE. It is not possible to accurately characterize the ammunition status for all of the allies with a single days-of-supply figure. [Deleted.] We hope, and expect, to see these allied improvement efforts continue.

Representative SMITH. If this is true, what is the United States doing to urge our allies to correct this dangerous situation?

In May 1984, Secretary Weinberger called on our allies to focus [deleted].

Representative SMITH. Is the United States sending a good example that our NATO allies can follow?

Dr. WADE. The United States is leading the way for our NATO allies in munitions sustainability. Both worldwide and European stockage levels of ammunition have increased for most critical items of ammunition over the past 5 years. These levels are projected to continue to rise, albeit slowly, during the next programming period.

Representative SMITH. Does the Warsaw Pact have an ample supply of munitions?

Is it enough to fight a war until the industrial base is mobilized?

Dr. WADE. DIA estimates that the Warsaw Pact has sufficient ammunition prestocked in the area opposite the NATO central region to sustain combat operations for a period of [deleted] days at planned expenditure rates. In addition, the Warsaw Pact may draw upon strategic reserves of ammunition located in the interior of the U.S.S.R. to support a longer campaign. Overall, Warsaw Pact planners have arranged for enough ammunition on hand to meet operational requirements until the available industrial base is geared up to wartime production rates.

It should be noted, however, that DIA's methodology for assessing Warsaw Pact sustainability is very [deleted].

Representative SMITH. Is it true that NATO has only two options, surrender or resort to tactical nuclear war if they run out of munitions prior to the Warsaw Pact?

Dr. WADE. Ammunition requirements are based upon our best estimate of wartime consumption rates. Naturally, these consumption rates are very high. If NATO were in danger of depleting its ammunition stocks, the most probable course of action would be rationing so that we would not run out. Under these circumstances, we would consume ammunition beyond the rationed level only if absolutely necessary. The use of tactical-nuclear weapons is a political decision made by the National Command Authorities based on many factors.

Representative SMITH. We have been informed that the calculations used for war reserve munitions requirements do not make allowances for losses as downed cargo airlift, lost cargo ships, and ammunition depots being overrun.

Is this true?

Dr. WADE. War reserve munitions requirements make allowances for inter- and intra-theater losses and losses on the ground. These areas, however, are generally not modeled in detail. Typically, a percentage factor is used.

Representative SMITH. The Air Force will not be buying 20-millimeter or 30-millimeter combat ammunition in fiscal year 1987 or beyond.

Will this cause a cold industrial base?

How long will it take to crank up these production lines to receive output equal to combat consumption?

Dr. WADE. The Air Force is planning to procure 20-millimeter cannon ammunition in fiscal year 1987 and beyond. This procurement, in conjunction with other services' procurements, protects the warm production base of the 20-millimeter ammunition.

Continued procurement of 30-millimeter training ammunition will maintain a warm base except for the depleted uranium penetrator production base. The conclusion of the 30-millimeter ammunition procurement will likely cause suppliers of certain components, unique to these ammunition, to drop out of the mobilization base. Industry estimates indicate that a resumption of 30-millimeter combat ammunition production would take 12 to 18 months.

Representative SMITH. The 30-millimeter industrial base is still warm in fiscal year 1986.

How long will it take from this warm base to surge the industrial capacity to equal combat consumption?

Dr. WADE. Unless current 30-millimeter industrial base is expanded, the production base cannot meet the planned combat consumption rates.

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Representative SMITH. It appears to be DOD policy to cancel industrial production of the more simple munitions well before the war reserve munitions stockpile is able to supply combat requirements to fill the void until industrial mobilization can meet combat consumption.

Is this true?

Dr. WADE. No. The Defense Guidance states the policy that "normally production should continue to maintain a warm production base for each item until the total planning goals plus 5 years of estimated peacetime losses/training consumption is met."

Representative SMITH. What assumptions are used in the war reserve munitions calculations?

Dr. WADE. Each service has its own methodologies for calculating war reserve munitions requirements and, in some cases, there are two or more methodologies that are applied to different classes of munitions. In total, there are at least eight different methodologies that are used. These range in complexity from full-blown simulations of ground/air combat at the theater level—used by the Army—to relatively simple scenario-independent calculations used for ship gun ammunition. Each of these methodologies has its own set of assumptions; for example, the Army's assumptions for their theater-level warfare simulation is documented in the publication: Army Force Planning Data and Assumption, which is several hundred pages long. Should more specific information be desired on the assumptions used in any of these methodologies, it can be provided.

Representative SMITH. DOD uses the term "procurement objective" regarding the war reserve munitions issue.

How many days of combat does the procurement objective equate to?

Dr. WADE. The "procurement objective" generally refers to the amount of munitions needed to meet the midterm objectives in the Defense Guidance. Refer to the insert for the record on pages 34-35 for the specific midterm objectives. Because it is more precise to compare procurement profiles directly with one of the midterm objectives, one should always verify the context in which the term "procurement objectives" is used to ensure an accurate interpretation.

Representative SMITH. There appears to be a disconnect between the weapons delivery system investment and the investment in munitions these systems need to fight with.

Please provide the total investment already made and anticipated for the next 5 years for the following weapons procurement: F-15, A-10, Aegis cruiser, and M-1 tank.

Also provide the investment in and anticipated in the next 5 years in munitions that are assigned for use in the above four weapons.

Please do not give total investment for those munitions that will have multiple use. Provide only that portion which is assigned for this specific use of the above four systems.

Dr. WADE. Total past and planned investment for the F-15 and A-10 are approximately $32 billion and $4.7 billion, repectively. The weapons for these systems are all interchangeable with other aircraft. Also, as weapons are procured, the Air Force does not assign specific items to designated airframe types. Therefore, consumption of munitions during wartime would be at the direction of each battlefield commander. However, a dollar figure has been constructed using data from the Air Force munitions planning process. The process analyzes expected consumption by aircraft type. The F-15 is expected to consume AIM-7's, AIM-9's and, when available, AMRAAM. The total dollars spent and budgeted for this consumption is approximately $2.994 billion. The A-10 is expected to consume 30 millimeter, Maverick and most conventional gravity weapons. The A-10 share of the amunitions budget is $4.543 billion.

Total past and planned investment for M1A1 tanks is approximately $10,547.9 million. The associated procurement for 120 millimeter ammunition is $2115.2 million.

Total past and planned investment for Aegis cruisers with vertical launchers—CG-52 and beyond—is [deleted]. The associated munitions cost for Tomahawk, Harpoon, SM-2[MR], MK-50, and vertical launch ASROC is [deleted].

[Whereupon, at 4:40 p.m., the subcommittee adjourned, subject to the call of the Chair.]

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